

NEW 437-4 | WHEEL LOADER

**BHARAT
KA JCB**



Powered by

JCB ENGINE
ecomax



CEV IV
STAGE

LOADED WITH SUCCESS.

Engine power: 108kW (145 hp) | Operating weight: 12,040 kg | Payload: 3,650 kg | Standard shovel capacity: 2.2 cu.m

JCB



50 YEARS OF JCB WHEEL LOADERS.

Over the five decades, company's award-winning loader range has expanded beyond recognition, introducing many market-leading technologies and establishing JCB as a global leader in the loader business.



GIVING SHAPE TO SUCCESS

Intelligent, tough and prudent beasts are ready to take on tougher challenges head-on whilst giving you sheer comfort. JCB's new range of Wheel Loaders; not only boast of engineering brilliance and technological advancement but also of robust components. They are designed and positioned to contribute to productivity, efficiency and savings. So, get ready and witness your success shaping-up as our range of wheel loaders glide their way into your business.



LOADED WITH SUCCESS.

Introducing the **NEW** CEV Stage IV 437-4 Wheel loader.

JCB always looks for a better way to make your business reach newer heights. The wheel loader 437-4 manifests these efforts, this model is sturdier and mightier than the outgoing model. It is now more fuel-efficient, economical with higher savings and exhibits sheer engineering brilliance. The versatility of this machine is sure to give you the confidence to take arduous challenges head-on in the new comfortable cabin and lead your industry in an exemplary way.

achiever...




 **Loaded with**
10%* Better fuel efficiency

 **Loaded with**
More productivity

 **Loaded with**
Proven & reliable aggregates

 **Loaded with**
Excellent comfort & safety

Advanced  **Loaded with**
LIVE JCB LINK 4.0 Advanced telematics technology

 **Loaded with**
Total peace of mind
700+ Outlets
4,000+ Skilled engineers

*Against the previous BS-III 432ZX Plus, tested under controlled environment. T&C Apply.

LOADED WITH POWERFUL PRODUCTIVE FEATURES

High Performance



- High torque 560Nm @1500rpm
- Powerful 108kW (145HP) JCB ecoMax engine
- Z bar-linkage with 129kN breakout force

Better Productivity



- High output
- Bigger and wider bucket range with varied capacity

Dynamic Fuel Efficiency



- 10%* More fuel efficiency
- Load sensing hydraulic system
- CRDI fuel system
- Auto transmission minimises transmission losses

Reliability & Durability



- Proven JCB CEV Stage IV ecoMax engine
- ZF Axles with ZF Ergo powershift auto transmission

Low Maintenance Cost



- IntelliDiagnostic for quick and easy troubleshooting
- Extended oil change intervals

Better Comfort & Safety



- 15%* Bigger cabin
- Excellent all-round visibility
- FOPS & ROPS (optional) for enhanced safety
- Unique engine safety system

Ease of Use

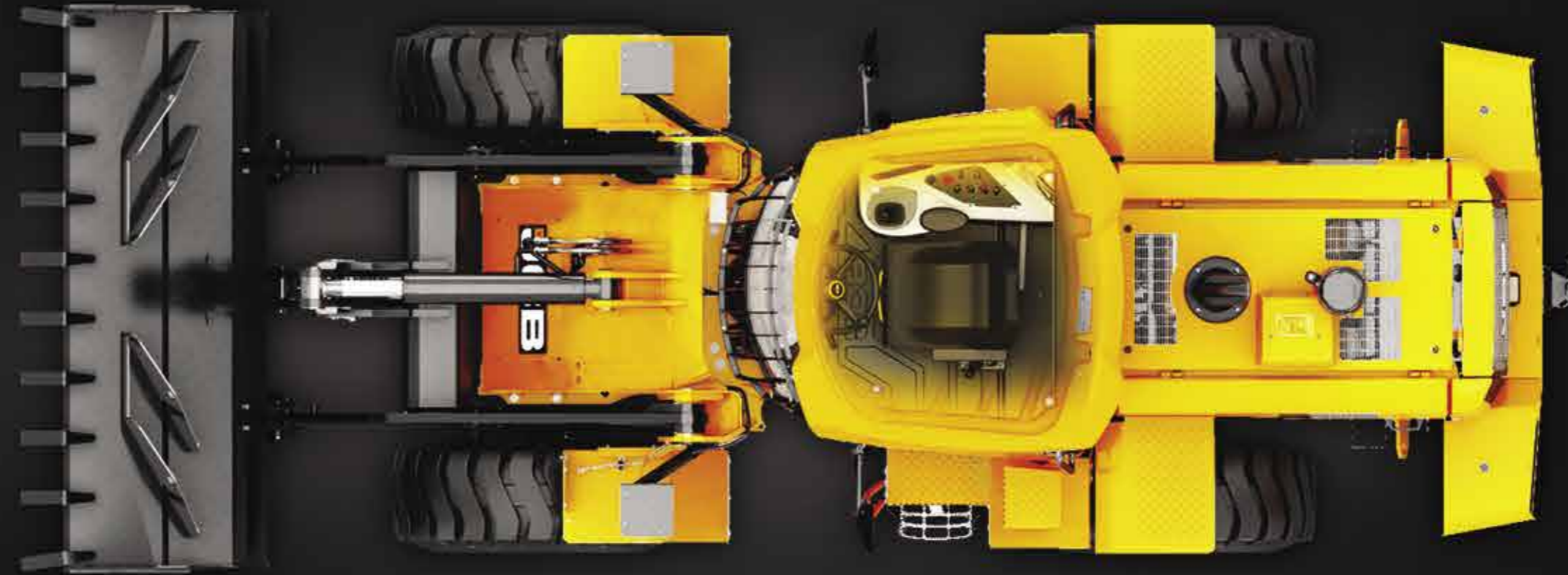


- 4" Informative LCD display for alerts
- Battery cut-off switch

24x7 Connectivity



- New advanced telematics - JCB LiveLink 4.0 with fuel consumption reports & alerts



MADE IN INDIA, MADE FOR SUCCESS.

Introducing the **NEW**
CEV Stage IV ecoMax Engine.

Efficient | Reliable | Simple



Well tested 
1,00,000+
cumulative hours



CRDi

16
Valves
Effort

VARIABLE
GEOMETRY
TURBO
CHARGER

ROBUST FUEL
FILTRATION
SYSTEM

WATERPROOF
IP69
CONNECTORS

LOADED WITH ENGINEERING EXCELLENCE

1 Proven & reliable JCB ecoMax 448, 4.8 liter. advanced CEV Stage IV diesel engine with CRDi technology offers dynamic fuel efficiency.

2 JCB high pressure fuel injection system with high swirl design and 16 valves (4 valves / cylinder) offers high peak torque of 560 Nm @ 1500 rpm.

3 Exhaust Gas Recirculation (EGR) process with 2 stage cooling mechanism and Variable Geometry Turbocharger (VGT) with simple after-treatment process.

4 JCB ecoMax engine features heavy-duty cast iron cylinder blocks, bedplate, cylinder head and forged crankshaft provide more strength and long life.

5 Robust & rugged fuel filtration system and IP69 connectors make the engine durable and reliable.

6 The combination of CRDi technology with high pressure fuel line and swirl design in combustion chamber offers cleaner exhaust, ensures simple and easy to maintain engine after treatment system.

7 The engine is designed and well tested for more than 1,00,000 hours in Indian conditions.



LOADED WITH EFFICIENCY

JCB 437-4 IS ENGINEERED TO MOVE MATERIAL IN LESSER TIME. THE PRECISION IN ENGINEERING IS MANIFESTED BY THE FUNCTIONING AND PLACEMENT OF ENGINE, AXLES, DRIVELINE AND HYDRAULICS.

1 Better fuel efficiency with new JCB CEV Stage IV ecoMax engine with 4.8 liter capacity, common rail and CRDI technology.

2 More savings, up to ₹15 lakhs* in 5 years.

3 More savings on maintenance cost, the variable pump is programmed to control the flow depending on the load this minimises the hydraulic loss.

1
CRDi



10%^{*} MORE FUEL EFFICIENT

2
SAVE FUEL WORTH ₹15,00,000* IN 5 YEARS



*Against the previous BS-III 432ZX Plus, tested under controlled environment. T&C Apply.



JCB 437-4
WHEEL LOADER



LOADED WITH RELIABILITY & DURABILITY

THIS MACHINE IS ENGINEERED TO HANDLE EVEN THE MOST DEMANDING WORK SITES HOUR AFTER HOUR, DAY AFTER DAY.

1 More productivity and unbeatable performance with JCB ecoMax engine, the heavy-duty cast iron cylinder blocks, bedplate, cylinder head and forged crankshaft provide more strength and long life.

2 Get more uptime in every condition with reliable, durable and efficient hydraulic pump, control valve, steering valve.

3 Safer, durable and low maintenance with hydraulically powered, outboard mounted, oil-immersed multiple disc brakes.

4 Sturdy machine built with finite element analysis and rigorous testing ensuring longer life of structures.

5 Easy manoeuvrability, productivity and reliability with heavy-duty Graziano axles with LSD & wet disc brake.

6 ZF Auto transmission offers durability, longer maintenance interval and high output with Kick down feature.

7 Achieve longer life, safety and protection of electrical harness and thus, low maintenance cost with dust & water proof IP69 certified connectors.

8 The articulation joint has a heavy-duty box section, centre pin with twin taper roller bearings so that it can tolerate both vertical and horizontal loadings.

1 JCB ecoMax Engine



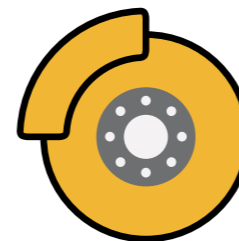
2 Control Valve



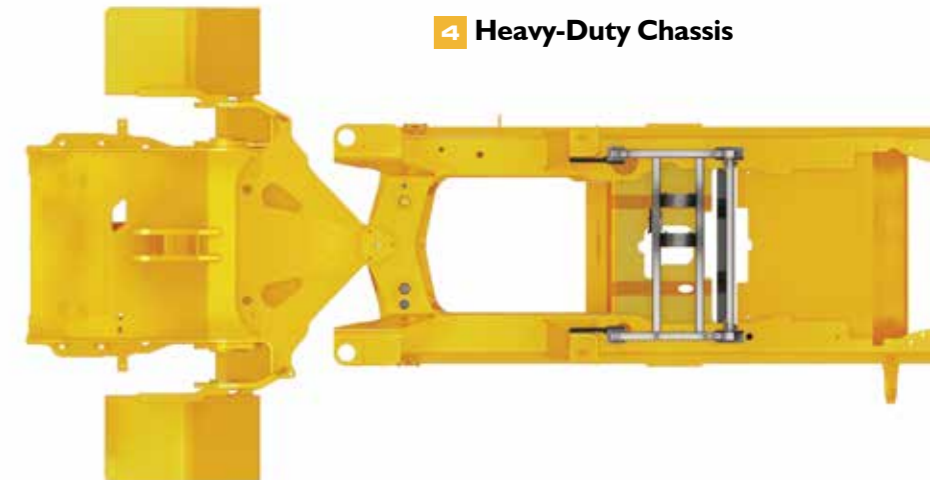
2 Hydraulic Pump



3 Multiple Disc Brakes



4 Heavy-Duty Chassis



5 Heavy-Duty Graziano Axles



Reliable



Transmission and Graziano Axles



LOADED WITH PERFORMANCE & PRODUCTIVITY

ENSURING UNMATCHED AND UNINTERRUPTED PRODUCTIVITY WITH HIGH POWER AND TORQUE, THE HYDRAULICS AND LOADER END IS SET-UP TO KEEP THE CYCLE TIME SHORT AND WORKING SHIFTS LONG.

1 Higher output and versatility in job with the wide bucket range-from 1.8 cu.m to 3.4 cu.m.

2 JCB engine delivers high peak torque of 560Nm @ 1,500rpm for quick engine response and higher output.

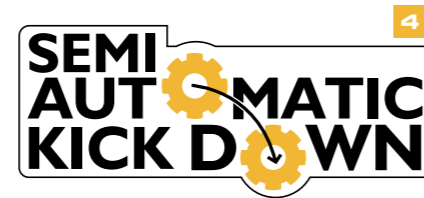
3 Better bucket penetration with Z-bar linkage with 121kN breakout force. This also improves operator efficiency and thereby, productivity.

4 More output and efficiency even in tough underfoot conditions with Auto Kick down function, it shifts the gear to 1st speed for excellent bucket penetration.

5 Higher breakout force with ergo Powershift (ZF4WG130) auto transmission with 4 forward & 3 reverse with max. forward speed 31Kmph and max. reverse speed 22Kmph. This improves operator efficiency and productivity.

6 Higher productivity, tractive effort and reduced cycle time with the new design of the loader arm, the dump height has been increased by 8%*. It enables the machine to dump easily on high body trucks.

7 Stronger grip and more stability with broad tyre (17.5 x 25 (20.5 x25 option also available).



LOADED WITH EASE & SAVINGS ON MAINTENANCE

SUCCESS IS NOW ACHIEVED AT LOWER COST AS THE NEW JCB 437-4 WORKS FOR MORE HOURS AS IT COMES WITH WORLD-CLASS QUALITY COMPONENTS THAT ARE RELIABLE AND GIVE VALUE FOR MONEY.

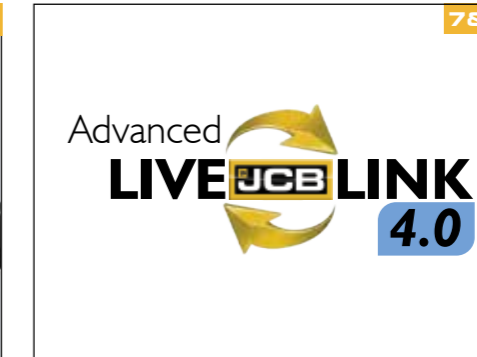
- 1 Easy access, reduce maintenance time and thus, more productivity with ground level engine bay for daily checkpoints.
- 2 More savings with extended change periods for engine oil/filter (500 hours), fuel filter (500 hours & 1,000 hours) and transmission oil (2,000 hours).
- 3 Great reliability and uptime with inbuilt quick release type pressure testing ports, they offer easy diagnostics.
- 4 The Electric Feed Pump offers long life and easy priming of fuel system for higher uptime.



SERVICE INTERVALS	
Engine oil & oil filter	Every 500 hours
Fuel filters	Every 500 & 1,000 hours
Transmission oil	Every 2,000 hours



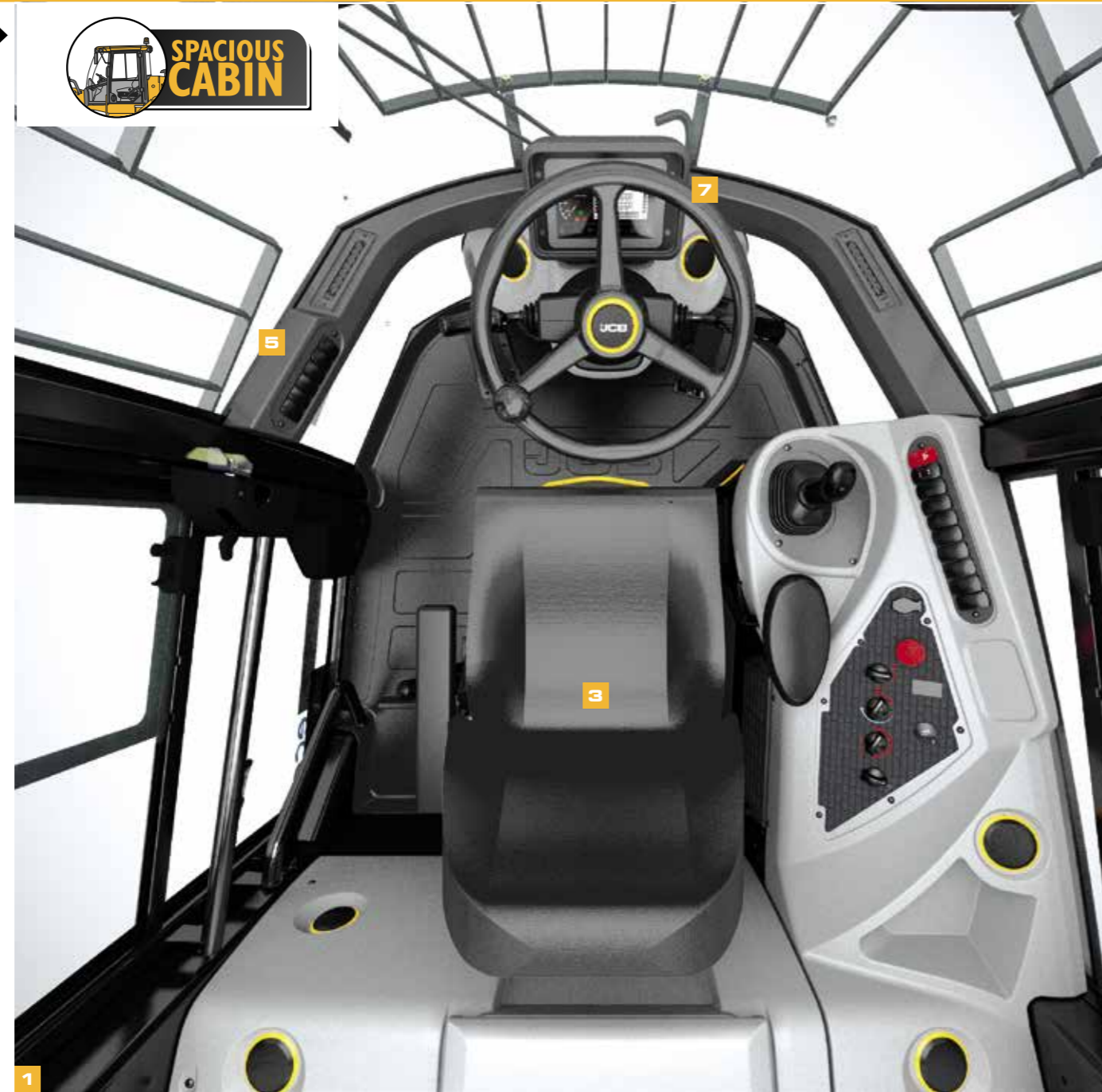
- 5 The wide opening gull-wing doors give easy access to the engine bay and cooling packs for servicing and daily check-ups.
- 6 The informative visual digital cluster provides easy to understand alerts with ERROR code & description for easy troubleshooting, thus, helps in higher uptime.
- 7 LiveLink alerts like service due reminder, low engine oil pressure, water in fuel, low fuel level etc., not only keep you informed but also help you in taking quick and on-time measures.
- 8 Centralised Lubrication System (CLS) is optional, it enhances machine uptime and life of pins & bushes.



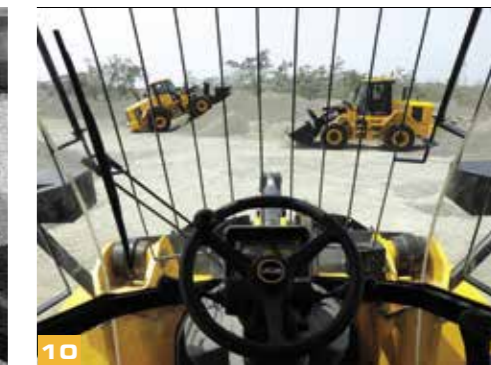
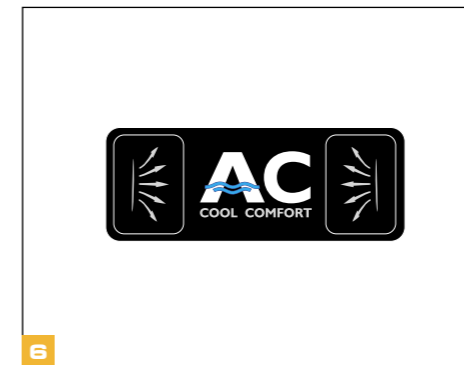
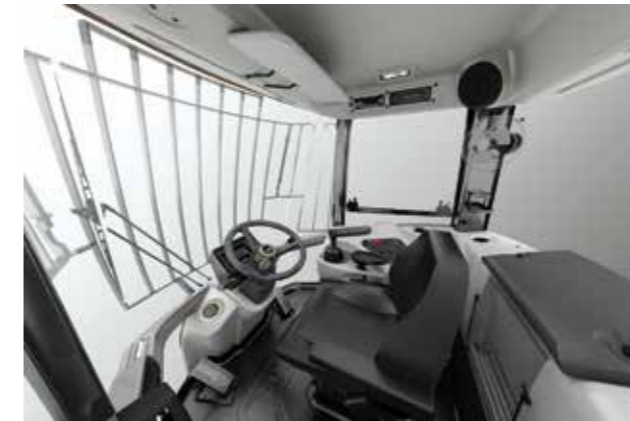
LOADED WITH COMFORT & STYLE

JCB HAS ALWAYS BELIEVED THAT PRODUCTIVITY INCREASES WITH COMFORTABLE OPERATORS. THEREFORE, THIS MACHINE COMES WITH STYLISH AND ERGONOMICALLY DESIGNED 3M3 CABIN, ENSURING SAFETY AND COMFORT OF THE OPERATORS.

- 1 Ease in operation and more legroom as the cabin is now 15% bigger with ergonomically positioned machine controls.
- 2 Low noise and vibration in the cabin, keep operator's fatigue at bay as the cabin is isolated from the chassis with wide rubber mounts.
- 3 Better operator performance with a comfortable seat designed for longer working hours.
- 4 Easy and relevant daily information from the stylish, modern central digital display units that provide machines health details, service requirements and operating information.
- 5 The new cabin has a windscreen and FM radio.
- 6 Keep the cabin cooler with air conditioning which comes as an option.
- 7 The adjustable steering column offers better control, maximum comfort and customised position to the operator.
- 8 Precise and more controlled operations with servo control, an effortless single-hand machine control joystick (optional) which controls loader arm & bucket operations, forward & reverse, horn and transmission disconnect.
- 9 Better ventilation and easy on-site communication with the sliding window on each side.



- 10 The increased cab glass area gives better visibility.
- 11 Achieve better visibility and safety even at night with the work lamps, there are 2nos. of head lamps, 2 nos. each of front and rear lamps, parking lights, direction indicator lamps, reverse light and fog lamps.
- 12 Get clear and detailed information with the new and stylish 4" digital display.



LOADED WITH SAFETY

SAFETY AND SECURITY OF THE OPERATOR & MACHINE ARE OUR TOP PRIORITIES. THIS HAS BEEN ENSURED BY BELOW MENTIONED FEATURES.

1 Efficient and safer brakes as there is a separate circuit for front and rear hydraulic power brakes with backup.

2 Access machine safely with 3 point contact cab access which are correctly placed complemented by well-positioned grab handles.

3 The accumulator lowers the loader arm during emergency conditions.

4 More safety of the machine and the operator with the rearview camera (optional) that displays an unobstructed rearview.

5 LiveLink's mobile alerts on fuel theft, towaway, intrusion, geo fencing and battery removal ensure safety of the machine even when you are away.

6 Easy manoeuvring and safety of the operator during emergency with the separate steering and brake priority hydraulic circuit.



7 Avert a mishap with emergency steering (optional), it helps the operator to steer the machine to a safer location.

8 Safer operations with FOPS & ROPS compliant cabin (optional).



LOADED WITH LIVELINK

INTRODUCING THE NEXT GENERATION ADVANCED TELEMATICS TECHNOLOGY- LIVELINK



LiveLink is an advanced telematics technology which helps you monitor and manage your machine fleet remotely from anywhere in the world via web or your smartphone.

Power of LiveLink: With LiveLink you can reduce fuel cost, optimise machine, operator performance, proactively manage service and maintenance to maximise uptime. Stay connected to your machines via remote monitoring, experience new levels of control and efficiency with LiveLink.

SERVICE



Service reminder: Reminds you when the service of your machine is due; the reminder helps you plan your work better.



Machine data backup: Helps to maintain the records of past services in an organised manner.



Critical machine health alerts: Lets you know the inside of your machine from a faraway location. Helps in taking proactive measures to avoid breakdown through alerts.

OPERATION



Fuel level information: View fuel usage of your machine, which helps in analysing your machine's fuel consumption, thus, helping you improve efficiency and save on fuel. It also reports any sudden fuel level decrease.



Machine utilisation reports: Maintains machine usage record and helps you analyse & optimise utilisation of the machine.



Engine status: Informs you if your JCB machine's engine is switched ON or OFF.

SECURITY



GPS tracking: Tells you the exact location of your machine on a map.



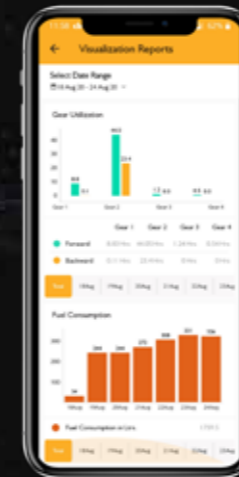
Tow away alerts: Help you save your machine from intruders and possible towaways.



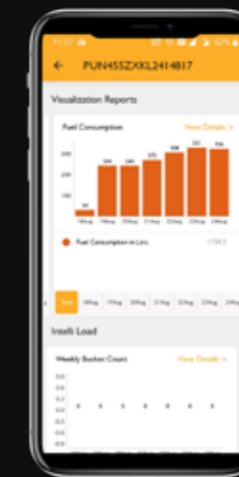
Operating hours: Lets you control the machine operation in permitted time frame.



Geofencing: Lets you keep your machine within the allocated area of work.



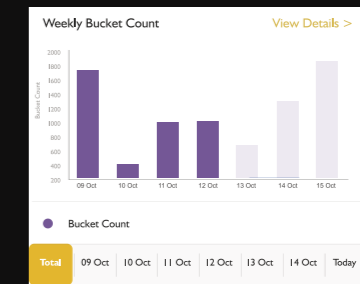
Gear utilisation
Analyse operator behaviour with reports on time spent in each gear.



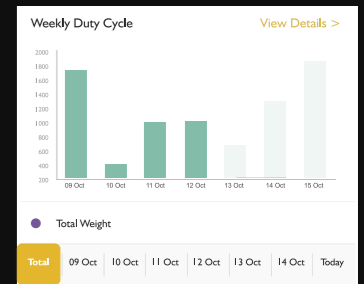
Fuel consumption
Know how much fuel is consumed per day to optimise fuel usage according to work for better fuel-efficiency.



Bucket Load Count



Duty Cycle



LOADED WITH INTELLIGENCE

Intelli Load, an intelligent and unique productivity management system to achieve better machine performance. It increases efficiency by eliminating the guess work and takes the productivity to a whole new level. A real time onboard display informs the exact weight and volume of material while loading.

- Integrated with LiveLink
- Overloading and underloading alerts
- Precise payload measuring
- Saves time and fuel

INTELLI
LOAD



LOADED WITH PROMPT SERVICE



EXTENSIVE CUSTOMER SUPPORT NETWORK

With 700+ outlets, JCB has widely spread and prompt support system in the construction industry.

One Shop Solution-JCB manufactures all major parts of its machine which are readily available at its dealerships & outlets ensuring rapid customer service support.

4000+ service engineers are trained & certified for CEV Stage IV machines, thereby, quickly resolving any customer concern.


 **60+**
Dealers

 **700+**
Outlets

 **3000+**
Mobile service engineers

 **18** Operator training centres

 **5**
Parts warehouses

 **24x7 Support**
12 Languages

 **250+**
Service vans

LOADED WITH SERVICE & SUPPORT

JCB'S CERTIFIED ENGINEERS FOR WHEEL LOADER

JCB's certified engineers are there to maximise your profitability and reduce downtime. Our engineers are always there to serve the customers and provide value-added solutions to all their concerns regarding the machines and services.



JCB trained and certified engineers



Best-in-class service and repairs



On-site training and support



LOADED WITH CARE

GIVE YOUR MACHINE EXTENDED WARRANTY AND CARE.

- JCB Careplus is an extended warranty programme that comes into effect after the machine's standard warranty expires.
- JCB Careplus can be purchased within the 1st year from the sale of the machine.
- The programme offers you peace of mind and saves your maintenance cost even after your machine's standard warranty expires.



Extended Warranty Programme



BENEFITS OF JCB CAREPLUS



No limits on number of claims



Preventive maintenance service*



Nationwide coverage*



JCB skilled manpower support



Maximum productivity



Maximum uptime



Maximum performance



Breakdown cost protection



Better resale value

JCB LOYALTY PROGRAMME



We believe that customer loyalty is paramount to any brand's success. Our loyalty programme is a reflection of our brand promise and our constant endeavour to offer you more than your expectations.

Instant membership card | Welcome kit
Reward points | Extended benefits
Special programme features

Blue Card



On purchase of a new machine or parts worth ₹1,000

Silver Card



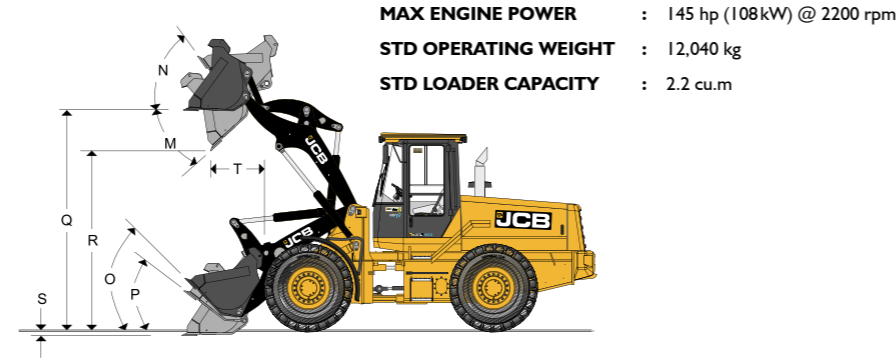
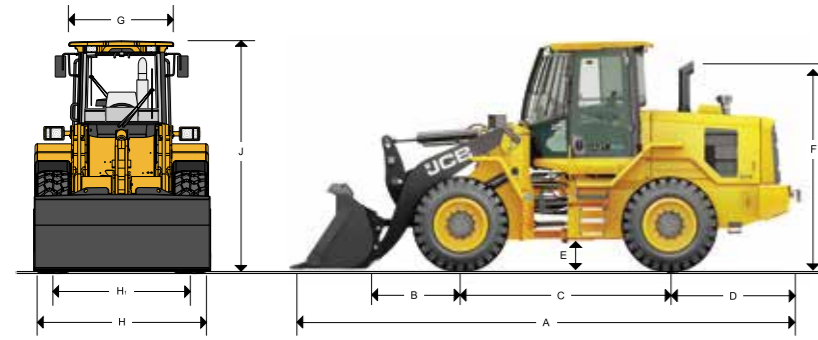
Blue members making a purchase of ₹25,000 in the quarter

Gold Card

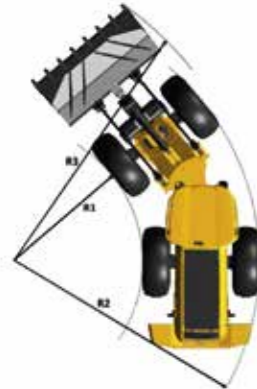


Silver members making a purchase of ₹50,000 in the quarter

*T&C Apply



TURNING RADIUS



STATIC DIMENSIONS

Dimension	Description	Unit	Value
A	Overall length with bucket	m	7.51
B	Axle to pivot pin	m	1.20
C	Wheel base	m	3.00
D	Axle to tow hitch on counterweight	m	1.91
E	Minimum ground clearance	mm	380
F	Height over exhaust	m	2.99
G	Width over cab	m	1.53
H	Width over tyres	m	2.40
HI	Wheel track	m	1.96
J	Height over cab	m	3.26

Nomenclature	Unit	437-4 STANDARD									
		335/B6693	402/K1065	336/F5101	402/L3266	335/B6606	335/B6534	336/F3615	400/Y8488	401/D8780	
Shovel equipment											
Shovel type		Rock bucket	Iron ore bucket	Welded teeth			With teeth	Bolt on toe plate	Welded teeth	Welded teeth hardox	
Bucket capacity (ISO/SAE heaped)	m ³	1.8	1.8	2.2	2.4	2.7	3.1	3.4	3.4	2.2	2.2
Bucket capacity (Stuck)	m ³	1.49	1.48	1.84	2.08	2.25	2.58	3.01	2.97	1.84	
Bucket width	m	2.58	2.58	2.66	2.73	2.78	2.80	2.89	2.89	2.66	
Bucket weight	kg	1102	1002	988	1176	1260	1201	1341	1284	1005	
Max. allowed material density	kg/m ³	1950	1833	1660	1522	1280	1160	980	1003	1655	
Tipping load straight	kg	7799	8100	8030	7867	7678	7935	7304	7502	8010	
Tipping load full turn	kg	7090	7364	7300	7152	6980	7214	6640	6820	7282	
Payload	kg	3545	3682	3650	3576	3490	3607	3320	3410	3641	
Maximum breakout force	kN	117	129	121	127	116	103	99	103	121	
Operating weight	kg	12154	12054	12040	12228	12312	12253	12397	12336	12057	
M Dump angle maximum	deg	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	
N Roll back angle full height	deg	52	52	52	52	52	52	52	52	52	
O Roll back at carry	deg	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	
P Roll back at ground level	deg	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	
Q Load over height	m	3.58	3.58	3.58	3.59	3.59	3.59	3.56	3.58	3.58	
R Dump height (Max dump)	m	2.70	2.76	2.71	2.75	2.69	2.60	2.67	2.60	2.71	
R1 Inside radius	m	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	
R2 Maximum radius over tyre size 17.5X25	m	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.32	
R3 Maximum radius over shovel	m	5.92	5.94	5.95	5.99	6.08	6.12	6.14	6.13	5.95	
S Dig depth	mm	65	65	67	58	58	65	92	66	67	
T Reach @ dump height	m	1.29	1.22	1.27	1.24	1.31	1.39	1.26	1.39	1.27	
Reach maximum (45° dump) arm horizontal	m	2.02	1.96	2.00	1.97	2.04	1.98	1.99	2.12	2.00	
Pin Height maximum	m	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83	

LOADER

Heavy-duty 3 ram geometry (Z-bar Linkage) providing high breakout force with excellent loading characteristics. The pin, bush and sealing design on all pivot pins provide extended maintenance intervals

ENGINE

Make & model : JCB ecoMax 448
 Type : 4 stroke, direct injection, Water cooled, 4 cylinder, Turbo charged, after cooler with after treatment system
 Displacement : 4.88 L
 Gross power : 108 kW (145 HP) @ 2200 rpm
 Max. torque : 560 Nm @ 1500 rpm
 Emission Norms : CEV Stage IV

TRANSMISSION

4 wheel drive automatic power shift transmission electrically operated selector and gear change incorporating a speed inhibitor and modulation for responsive on-the-move direction and ratio changes. Single stage integral torque convertor.

Type : ZF Ergo Power
 Make & Model : ZF-4WG-130

SPEEDS

Max. speeds in each gear	Forward	Reverse
1st Gear	8	8
2nd Gear	13	13
3rd Gear	23	23
4th Gear	33	NA

AXLES

Type : Planetary hub reduction
 Make & model : Graziano PR-10 Front & Rear
 Overall axle ratio : 24.1:1
 Rear axle : ± 12.5 deg oscillations

BRAKES

Service: Hydraulic power braking on all wheels, operating pressure 80 bar. Dual circuit with accumulator backup provides maximum safety under all conditions. Out-board mounted, oil immersed, multi plate disk brakes.

Parking : Mechanical disc type

STEERING

- Q-Amp hydraulic system with integrated priority valve operating at 190 bar to provide low effort and smooth response.
- Steer ram located high in chassis to provide protection from damage.
- Adjustable steering column.
Steering angle : ± 40°

CAB

- Resiliently mounted, (optional) ROPS/FOPS structure.
- Deluxe operator environment combines ergonomically located controls with a high level of appointment and low internal noise levels.
- Entry/ Exit via large rear hinged door and anti-slip steps.
- Excellent forward visibility is provided by 3 section curved laminated windscreens.
- Extensive instrumentation includes electronic monitoring display unit for transmission functions.
- Audio/ visual monitoring includes engine oil pressure, transmission oil temperature and pressure, engine coolant temperature and blocked air filter warning.
- The cab environment is positively pressurised preventing the ingress of dust provision of speakers and antenna for radio fitment.
- The unitary construction allows easy sealing and prevents ingress of dust.
- Electric speed range selector (with integrated kick down button) for gear shift and direction change. Hand lever for parking brake.

TYRES

	Standard	Optional
Tyre size	17.5 X 25 (20PR)	20.5 X 25 (Tubeless)
Manf.	BKT / CEAT	BKT
Type	E3/L3	L3
Rating	20 PR	16 PR
Operating wt.	12040 kg	12312 kg
Vertical (mm)	-	+70
Width (mm)	-	+50

ELECTRICALS

24 volt negative ground system, 100 Amp alternator with 2X110 AH low maintenance batteries. Ignition key start/stop.
 Other electrical equipment include 4 front and 2 rear work lights, registration plate light at rear, parking lights, direction indicators, reverse lights and alarm.
 Connectors IP69 standard.
 Relays & fuses are well identified and conveniently located on the rear console.

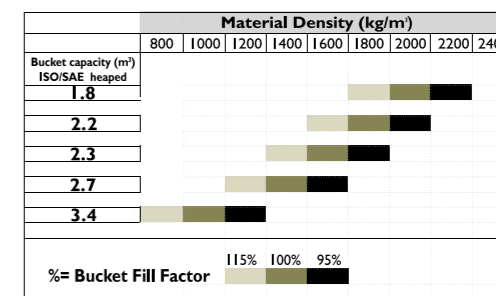
HYDRAULICS

Axial piston pump with load sensing and priority valve. Twin spool remote mounted valve block with float. Main services are servo actuated from hydraulic remote lever (joystick) and loader control through accumulator backup hydraulic supply unit.
 Pump displacement : 80 cc/rev and 34.56 cc/rev
 System pressure : 245 bar
 Pump flow : 176 lpm

SERVICE CAPACITIES

Hydraulic system	: 210 L
Fuel tank	: 210 L
Engine oil	: 14 L
Cooling system	: 29 L
Transmission	: 36 L
Front Axle oil	: 26 L
Rear Axle oil	: 26 L
DEF tank	: 20 L

BUCKET SELECTION DIAGRAM



OPTIONS

- Air condition
- Intelli Load
- Rearview camera
- Centralised lubrication system
- Cabin front grill
- FOPS/ROPS
- Reversible cooling fan

MATERIAL DENSITY

Material	Loose density(kg/m ³)	
Sand	Dry	1290
	Dry fine	1425
	Damp	1735
Wet		1870
		1940
Gravel	Commo	1570
	Sandy	1670
	Wet river	1940
Clay	Dry	1510
	Damp	1570
	Wet	1660
Earth	Top soil	1000
	Dry	1050
	Moist	1275
Coal	Lignite	900
	Bituminous	895
	Anthracite	1070
Coke		440
Rock	Basalt	1960
Stone	Granite	1650
	Limestone	1510
	Sandstone	1335
	Shale	1500
	Marble	1510
Ores	Bauxite	1610
	Gypsum	1850
	Haem red	2280
	Haem brown	2820
	Magnesite	3320
Phosphate		1970
Misc	Slag	1500
	Concrete Rubble	1400

Dealer's Stamp: