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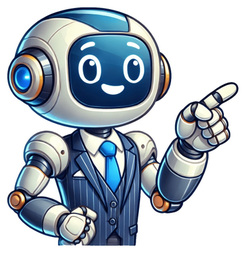

JCB is one of the largest privately owned engineering and manufacturing companies in the UK and the World's third largest manufacturer of construction machinery. With a global presence and manufacturing facilities on 4 continents, we employ over 15,000 people worldwide and produce over 300 different products. With a trusted brand that is synonymous with world class innovation. Our team design and build machines for hard work and reliability, using only the most advanced technology and techniques. We produce a broad spectrum of machines from 800kg to nearly 50 tonnes for markets including traditional construction through to defence, waste recycling and agriculture. JCB's success is built upon constant customer focus and innovation in everything we do. Always looking for a better way. 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Vela Olimpica, 24 Sorocaba, SP 18087350, BR Get directions JCB India Ltd 23/7, Mathura Road, Ballabhgarh, District Faridabad, Haryana 121004, IN Get directions JCB Singapore 50 Collyer Quay Singapore, 049321, SG Get directions JCB Germany 113a Europaalle Frechen, 50226, DE Get directions JCB France 3 Rue de Vignolle Sarcelles, 95200, FR Get directions Browse All JCB or Loader Backhoe Models Contents: Ground Clearance1.22 ft in (370 mm)Cab Roof Height9.95 ft in (3.03 m)Width92.52 in (2350 mm)Total Travel Length221.26 in (5620 mm)Travel Clearance142.13 in (3.61 m)Axle Centreline Distance7.12 ft in (2.17 m)Kingpost Clearance1.71 ft in (0.52 m)Rear Frame Width7.71 ft in (2.35 m)Slew Centre To Rear Axle Center Distance4.47 ft in (1.36 m)Stabiliser Feet Clearance1.22 ft in (0.37 m)Steering Wheel Centre Height6.37 ft in (1.94 m) Reach At Max Dump Height21.4 ft in (6520 mm)Dig Depth0.18 in (4.33 mm)Load Over Height10.5 ft in (3.2 m) Emissions CertificationTier IVRated Engine Speed1200 rpmNet Power536.5 hp (400 kw)Gross Power81 hp (60.5 kw) Operating Weight17861.9 lb (8102 kg)Hydraulic System Fluid Capacity43.6 gal (165 L) Max Speed4.7 mph (7.5 km/h) Brand JCB Model 3CX Eco First production 2009 Last production 2017 Category - Sub category - Service repair manual JCB 3CX Eco Manual pressure rollerN.A AccessN.A Bucket capacity291 Gallons / (1.1 m) c Bucket capacity backhoe68.68 Gallons / (0.26 m) c Bucket width7.71 ft / (2.35 m) c CO emissionsIII B Cylinder bore stroke length103x132 mm Dredging depth13.91 ft / (4.24 m) c DriveA Engine category444 Engine displacement4400 cc / (4.4 l) c Engine horsepowerN.A Engine horsepower55000 Watts / (55 kW) c Engine manufacturerJCB Length x width x heightN.A Maximum discharge height8.99 ft / (2.74 m) c Maximum engine torque400 Nm c Maximum Reach horizontal17.62 ft / (5.37 m) c Maximum transport height11.84 ft / (3.61 m) c Maximum transport length18.44 ft / (5.62 m) c Maximum transport width7.71 ft / (2.35 m) c Number of cylinders4 Shovel WidthN.A Tearout force14397 pounds / (64.04 kN) c Tearout force backhoe13940 pounds / (62.01 kN) c Top speed24.85 mph / (40 km/h) c Torque Revolution1200 rpm c tyres size12.5 x 18 x 10/16.9 x 28. 12PR Weight16976 lbs / (7.7 t) c WeightN.A Parts And Accessories JCB 3CX Eco Parts Air Conditioning System Clamshell Diesel Particulate Filter DPF DPF DPF Forklift Utility Grabber Length Body Maximum Height Outrigger Stabilisers Shoe Type JCB 3CX Eco picture Dimensions EGround ClearanceTotal Travel LengthAxle Centreline DistanceKingpost ClearanceRear Frame WidthSlew Centre To Rear Axle Center DistanceStabiliser Feet ClearanceSteering Wheel Centre Height Loader HReach At Max Dump HeightLoad Over Height Please login to get a quote for this vehicle. Click here to create a new account. Max. Engine Power 63kw (85hp) -or- 68.6kw (92hp)Max. Backhoe Dig Depth 5.97 meters (19ft-7inches) Self Drive and Operated HireWith one of the largest fleets of backhoe loaders in the Yorkshire area we are able to supply next working day delivery to areas including Hull, Immingham, Grimsby, Scunthorpe, Lincoln, Sheffield, Doncaster, Castleford, Goole, Selby, York and Scarbrough.Over the years the backhoe loader has been refined to become extremely versatile. A professional operatorwho has the knowledge and expertise to be able to use the extradig, power, 6-in-1 and forks to his advantagemakes the backhoe a great choice when on a tight budget. The JCB 3cx is the world's number one backhoe loader. The 3cx is a product of JCB's efficient design philosophy,responding to today's rising fuel prices and environmental concerns with class-leading efficency and low running costs.JCB has applied innovative technologies to squeeze the absolute maximum out of every drop of fuel on the 3cx Eco.In a typical roading, loading, excavating and idle cycles, the 3cx Eco backhoe loader, equipped with a 63kW Dieselmaxengine delivers an average fuel saving of up to 16%, plus lower emissions and noise levels. And, with extended periodsbetween fill ups, you benefit from a longer, more productive working day.Efficiency: JCB have developed EcoDig, a standard fitment three-pump hydraulic system that allows the same highhydraulic flow and pressure but at lower engine speeds, for up to 15% improvement in fuel economy when excavating.The 3cx Eco has a patented Torque-Lock technology (the world's first lock-up torque converter fitted to a backhoe loader),EcoRoad reduces fuel consumption by up to 25%, yet increases both speed and working area up to 10%.Another feature is the Hydraulic Speed Control (HSC), which automatically disconnects the first hydraulic pump whenin fourth gear. This reduces fuel consumption still further.Build Quality: The 3cx Eco has been tested in all climates, including arctic conditions.On the production line every new 3cx Eco is put through around 600 performance checks.Hydraulic hoses are approved to work down to -40 and all 3cx materials are tested to extreme temperatures and exposed to chemical, salt, oil and sunlight to ensure maximum protection. Specifications Static Dimensions:M (ft-in)A Total travel length5.62 (18-5)B Axle centreline distance2.17 (7-1)C Slew centre to rear axle centre distance1.36 (4-6)D Stabiliser feet clearance0.37 (1-2)E Kingpost clearance0.52 (1-8)F Steering wheel centre height1.94 (6-4)G Cab roof height2.87 (9-5)H Total travel clearance3.61 (11-10)J Rear frame width2.35 (7-8)2.24 (7-4) narrow optionK Shovel width2.35 (7-8)2.23 (7-4) narrow optionLoader Dimensions:fitted with 6-in-1 frontshovelM Dump height2.72 (8-11)N Load over height3.20 (10-6)O Loader hinge pin height3.45 (11-4)P Pin forward reach0.36 (1-2)Q Reach at ground (toe plate horizontal)1.37 (4-6)R Max, reach at full height1.15 (3-9)S Reach at full height fully dumped0.78 (2-7)T Dig depth0.10 (0-4)U Roll back at ground45V Dump angle43 Jaw opening width0.95 (3-1)Loader Dimensions: forklift performance data6-in-1 (front) shovel mounted forksM (ft-in)W Forks - tine length1.1 (3-7) Forks - tine width0.08 (0-3.1)X Forks reach at ground level2.66 (8.9)Y Fork reach at full height2.25 (7-5)Z Forks lift height - max.2.92 (9-7) Fork spacing - min0.2 (0-8) Fork spacing - max2.17 (7-3) SWL @ 500mm load centres1000 kg (2205 lb) Backhoe Dimensions:3cx Extradig ModelM (ft-in)A SAE max dig depthExt5.46 (17-11)Ret4.24 (13-11) SAE 2ft flat bottomExt5.43 (17-10)Ret4.21 (13-10) Maximum dig depth with deep profile bucketExt5.97 (19-7)Ret4.75 (15-7)B Reach - ground level to rear wheel centreExt7.87 (25-10)Ret6.72 (22-1)C Reach - ground level to slew centreExt6.52 (21-5)Ret5.37 (17-7)D Reach - at full height to slew centreExt3.66 (12-0)Ret2.74 (9-0)E Side reach - to centre line of machineExt7.09 (23-3)Ret5.94 (19-6)F Sae operating heightExt6.35 (20-10)Ret5.53 (18-2)G Maximum loadover heightExt4.72 (15-6)Ret3.84 (12-7) SAE loadover heightExt4.32 (14-2)Ret3.4 (11-3)H Total kingpost travel1.16 (3-10) Narrow rear frame option1.05 (3-5)J Bucket rotationSpeed201Backhoe Performance:3cx Extradig modelkgf (lbf) Bucket tearoutSpeed5385 kgf (11847 lbf)Power6228 kgf (13701 lbf) Dipper tearoutExt2255 kgf (4961 lbf)Ret3225 kgf (7095 lbf)kg (lb) Lift capacity of bucket pivot at full reachExt719 kg (1582 lb)Ret1451 kg (3192 lb) The JCB 3CX Eco is a powerful and versatile backhoe loader designed to tackle a wide range of construction tasks with efficiency and precision. In this article, we will delve into the detailed specifications of this machine, covering various aspects such as performance, dimensions, capacity, and more. So, lets dive right in!Performance The JCB 3CX Eco is equipped with a robust engine that ensures exceptional performance in demanding working conditions. Here are the key performance specifications:Engine Power74.2 kW (99.4 hp)Maximum Torque440 Nm (325 lbf ft)Maximum Dig Depth5.46 meters (17 feet 11 inches)Maximum Loader Capacity1.3 cubic meters (1.7 cubic yards)DimensionsThe JCB 3CX Eco is designed to provide optimal maneuverability while maintaining a sturdy and stable structure. Lets take a look at its dimensions:Overall Length5.92 meters (19 feet 5 inches)Overall Width2.24 meters (7 feet 4 inches)Overall Height3.54 meters (11 feet 7 inches)Operating Weight8,435 kg (18,600 lbs)CapacityThe JCB 3CX Eco offers impressive capacity for various applications, ensuring efficient material handling and digging capabilities. Lets explore its capacity specifications:Backhoe Bucket Capacity0.26 1.3 cubic meters (0.34 1.7 cubic yards)Loader Bucket Capacity1.0 1.3 cubic meters (1.3 1.7 cubic yards)Fuel Tank Capacity160 liters (42.3 gallons)Hydraulic System Capacity130 liters (34.3 gallons)Additional SpecificationsIn addition to the performance, dimensions, and capacity, the JCB 3CX Eco boasts several other noteworthy specifications:Travel Speed: 40 km/h (25 mph)Steering Modes: 2-wheel, 4-wheel, and crabTurning Circle: 7.7 meters (25 feet 3 inches)Ground Clearance: 0.33 meters (1 foot 1 inch)Hydraulic System Pressure: 250 bar (3626 psi)Conclusion The JCB 3CX Eco is a reliable and efficient backhoe loader that excels in various construction applications. With its powerful engine, impressive dimensions, and ample capacity, it is a valuable asset for any construction project. Whether you need to dig, load, or transport materials, the JCB 3CX Eco is up to the task. So, equip yourself with this versatile machine and take your construction endeavors to new heights! An engineer with 20 years of experience. Passionate about construction, mechanisms and heavy construction machines Drivetrain transmitting propulsion powerFor other uses of the word "transmission", see Transmission."Gearbox" redirects here. For other uses, see Gearbox (disambiguation).Transmission internals for a 2009 Volkswagen GolfA transmission (also called a gearbox) is a mechanical device invented by Louis Renault (who founded Renault) which uses a gear settwo or more gears working togetherto change the speed, direction of rotation, or torque multiplication/reduction in a machine.[1][2] Transmissions can have a single fixed-gear ratio, multiple distinct gear ratios, or continuously variable ratios. Variable-ratio transmissions are used in all sorts of machinery, especially vehicles.Early transmissions included the right-angle drives and other gearing in windmills, horse-powered devices, and steam-powered devices. Applications of these devices included pumps, mills and hoists.[citation needed]Main article: Bicycle gearingBicycles traditionally have used hub gear or Derailleur gear transmissions, but there are other more recent design innovations.Power and torque curves for two example car enginesSince the torque and power output of an internal combustion engine (ICE) varies with its rpm, automobiles powered by ICEs require multiple gear ratios to keep the engine within its power band to produce optimal power, fuel efficiency, and smooth operation. Multiple gear ratios are also needed to provide sufficient acceleration and velocity for safe and reliable operation at modern highway speeds. ICEs typically operate over a range of approximately 6007000 rpm, while the vehicle's speeds requires the wheels to rotate in the range of 01800 rpm.[3]In the early mass-produced automobiles, the standard transmission design was manual: the combination of gears was selected by the driver through a lever (the gear stick) that displaced gears and gear groups along their axes. Starting in 1939, cars using various types of automatic transmission became available in the US market. These vehicles used the engine's own power to change the effective gear ratio depending on the load so as to keep the engine running close to its optimal rotation speed. Automatic transmissions now are used in more than two thirds of cars globally, and on almost all new cars in the US.Most currently-produced passenger cars with gasoline or diesel engines use transmissions with 410 forward gear ratios (also called speeds) and one reverse gear ratio. Electric vehicles typically use a fixed-gear or two-speed transmission with no reverse gear ratio, as electric motors can operate at a wider range of RPM, and provide their full torque even when close to 0 RPM. Reversing the motor is achieved electrically.Transmission for a Bristol Sycamore helicopterMain article: Motorcycle transmissionThe simplest transmissions used a fixed ratio to provide either a gear reduction or increase in speed, sometimes in conjunction with a change in the orientation of the output shaft. Examples of such transmissions are used in helicopters and wind turbines. In the case of a wind turbine, the first stage of the gearbox is usually a planetary gear, to minimize the size while withstanding the high torque inputs from the turbine.[4][5]Many transmissions especially for transportation applications have multiple gears that are used to change the ratio of input speed (e.g. engine rpm) to the output speed (e.g. the speed of a car) as required for a given situation. Gear (ratio) selection can be manual, semi-automatic, or automatic.Main article: Manual transmissionA manual transmission requires the driver to manually select the gears[6] by operating a gear stick and clutch (which is usually a foot pedal for cars or a hand lever for motorcycles).Most transmissions in modern cars use synchromesh to synchronise the speeds of the input and output shafts. However, prior to the 1950s, most cars used non-synchronous transmissions.16-speed tractor transmission (plus 8 reverse gears)Mazda M5OD manual transmission (viewed from the engine side)Animation of a 4-speed sequential manual transmissionMain article: Sequential manual transmissionA sequential manual transmission is a type of non-synchronous transmission used mostly for motorcycles and racing cars. It produces faster shift times than synchronized manual transmissions, through the use of dog clutches rather than synchromesh.[7] Sequential manual transmissions also restrict the driver to selecting either the next or previous gear, in a successive order.A semi-automatic transmission is where some of the operation is automated (often the actuation of the clutch), but the driver's input is required to move off from a standstill or to change gears.Main articles: Automated manual transmission and Clutchless manual transmissionAn automated manual transmission (AMT) is essentially a conventional manual transmission that uses automatic actuation to operate the clutch and/or shift between gears.Many early versions of these transmissions were semi-automatic in operation, such as Autostick, which automatically control only the clutch, but still require the driver's input to initiate gear changes. Some of these systems are also referred to as clutchless manual systems.[8] Modern versions of these systems that are fully automatic in operation, such as Selespeed and Easytronic, can control both the clutch operation and the gear shifts automatically, without any input from the driver.[9][10]An automatic transmission does not require any input from the driver to change forward gears under normal driving conditions.Main article: Hydraulic automatic transmissionThe most common design of automatic transmissions is the hydraulic automatic, which typically uses planetary gearsets that are operated using hydraulics.[11][12] The transmission is connected to the engine via a torque converter (or a fluid coupling prior to the 1960s), instead of the friction clutch used by most manual transmissions and dual-clutch transmissions.[13]Hydraulic automatic transmission (cutaway view)Epicyclic gearing diagram, as used in hydraulic automatic transmissionsCutaway view of a ZF 6HP hydraulic automatic transmissionMain article: Dual-clutch transmissionA dual-clutch transmission (DCT) uses two separate clutches for odd and even gear sets.[14] The design is often similar to two separate manual transmissions with their respective clutches contained within one housing, and working as one unit.[15][16] In car and truck applications, the DCT functions as an automatic transmission, requiring no driver input to change gears.Main article: Continuously variable transmissionA continuously variable transmission (CVT) can change seamlessly through a continuous range of gear ratios. This contrasts with other transmissions that provide a limited number of gear ratios in fixed steps. The flexibility of a CVT with suitable control may allow the engine to operate at a constant RPM while the vehicle moves at varying speeds.CVTs are used in cars, tractors, side-by-sides, motor scooters, snowmobiles, bicycles, and earthmoving equipment.The most common type of CVT uses two pulleys connected by a belt or chain; however, several other designs have also been used at times.Gearboxes are often a major source of noise and vibration in vehicles and stationary machinery. Higher sound levels are generally emitted when the vehicle is engaged in lower gears. The design life of the lower ratio gears is shorter, so cheaper gears may be used, which tend to generate more noise due to smaller overlap ratio and a lower mesh stiffness etc. than the helical gears used for the high ratios. This fact has been used to analyze vehicle-generated sound since the late 1960s, and has been incorporated into the simulation of urban roadway noise and corresponding design of urban noise barriers along roadways.[17]Main article: Gear, Gear failure mechanismGears are machine elements aimed to transmit power, their proper design is defined by standard.The standard ISO 6336[18] and AGMA 2001[19] provide informations regarding the design procedure and define calculation method to verify if gears are safe with respect to different failure mechanism. Without a correct design and manufacturing of the gears the transmission could present low efficiency, high NVH and low lifetime.Gears present several failure mechanism, which are: wear, scuffing, pitting, micro-pitting, tooth flank fracture and tooth root fatigue fracture.These mechanisms are due to several phenomena: friction, contact (Hertzian pressure, sliding/rolling), bending fatigue and lack of lubrication. All this phenomena can happen simultaneously and they lead to the failure of the gearbox.Look up transmission in Wiktionary, the free dictionary.Wikimedia Commons has media related to Transmissions.Bicycle gearingDirect-drive mechanismList of auto partsTransfer case^ J. J. Uicker; G. R. Pennock; J. E. Shigley (2003). Theory of Machines and Mechanisms (3rded.). New York: Oxford University Press. ISBN9780195155983.^ B. Paul (1979). Kinematics and Dynamics of Planar Machinery. Prentice Hall.^ Naunheimer, Harald; Bertsche, Bernd; Ryborz, Joachim; Novak, Wolfgang (2011). "Power Conversion: Selecting the Ratios". Automotive Transmissions: Fundamentals, Selection, Design and Application. Springer. pp.100114. doi:10.1007/978-3-642-16214-5_4. ISBN978-3-642-16214-5. Retrieved 21 January 2023.^ Stiesdal, Henrik (August 1999), The wind turbine: Components and operation (PDF), retrieved 2009-10-06^ Musial, W.; Butterfield, S.; McNiff, B. 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Retrieved 6 October 2014.^ "Powertrain transmissions: Shift in power to the gearbox" (PDF). AMS. UnofficialBMW.com. SeptemberOctober 2003. Archived (PDF) from the original on 17 July 2011. Retrieved 31 October 2009.^ "Automatic-shifting dual-clutch transmissions are poised to grab share from traditional transmissions thanks to their combination of efficiency and convenience" (PDF). AEI-online.org. DCTfacts.com. June 2009. Archived from the original (PDF) on 7 October 2011. Retrieved 31 October 2009.^ "Porsche Doppelkupplung (PDK)". Porsche.com. Archived from the original on 5 December 2008. Retrieved 31 October 2009.^ Hogan, C. Michael; Latshaw, Gary L. (2123 May 1973). The Relationship Between Highway Planning and Urban Noise. Proceedings of the ASCE, Urban Transportation Division Specialty Conference. Chicago, Illinois: American Society of Civil Engineers, Urban Transportation Division. Archived from the original on 18 May 2007. Retrieved 12 September 2007.^ "ISO 6336-1:2019 Calculation of load capacity of spur and helical gears Part 1: Basic principles, introduction and general influence factors". ISO.^ "ANSI/AGMA 2001 - Fundamental Rating Factors and Calculation Methods for Involute Spur and Helical Gear Teeth".Retrieved from " Skip to content Ground Clearance1.22 ft in (370 mm)Cab Roof Height9.95 ft in (3.03 m)Axle Centreline Distance7.12 ft in (2.17 m)Stabiliser Feet Clearance1.22 ft in (0.37 m)Steering Wheel Centre Height6.37 ft in (1.94 m)Total Travel Length221.26 in (5620 mm)Travel Clearance142.13 in (3.61 m)Width92.52 in (2350 mm)Kingpost Clearance1.71 ft in (0.52 m)Rear Frame Width7.71 ft in (2.35 m)Slew Centre To Rear Axle Center Distance4.47 ft in (1.36 m)Reach At Max Dump Height21.4 ft in (6520 mm)Dig Depth0.18 in (4.33 mm)Dump Height8.99 ft in (2.74 m)Load Over Height10.5 ft in (3.2 m)Loader Hinge Pin Height_Long Arms11.32 ft in (3.45 m)GaugesTachometer, engine coolant temp, fuel level, hourmeter, clockPre-WireRadio speakers (cab), beacon (all)Front Working Lights4 adjustableRear Working Lights4 adjustableBattery1000 CCA (120 amp)Alternator95 ampsEmission StandardsTier IVNumber Of Cylinders4Cooling MethodHot climate specification, pressurized 1.0 bar suction fan. Pressurised recovery tank with integral filler neckRated Engine Speed2200 rpmEngine Model3CX ECO SITE MASTERGross Power73.8 hp (55 kw)Net Power536.5 hp (400 kw)Air CleanerDual, dry element type, with self cleaning internal air intake cleanerFuel TypeDieselNet Max Torque295.1 lb ft (400 Nm)AspirationTurbochargedDisplacement268.6 cu in (4.4 L)Bore4.1 in (103 mm)Stroke5.2 in (132 mm)Operating Weight17861.9 lb (8102 kg)Fuel Tank Capacity39.7 gal (150 L)Max Weight17934.7 lb (8135 kg)Hydraulic System Fluid Capacity43.6 gal (165 L)Cooling System Fluid Capacity4.9 gal (18.5 L)Front Axle Fluid Capacity4.3 gal (16 L)Rear Axle Fluid Capacity4.3 gal (16 L)Max Speed4.7 mph (7.5 km/h)Transmission TypeSyncroshuttle

Jcb 3cx eco. Jcb 3cx weight in tons. Jcb 3c weight. Jcb 3dx eco. Jcb 212s weight. Jcb 3dx cubic capacity. Jcb 3cx weight. Size of jcb.