

Quick Start Guide



Compact Wheeled Loader

406, 407 & 409



Disclaimer

- > This Quick Reference Guide is to provide quick and simple information to the Operator and does not include any health and safety aspects. In addition, because of our continual development of machines, features described in this Quick Reference Guide may differ from those on your machine. No errors and emissions be entirely ruled out.
- > This Quick Reference Guide **DOES NOT** replace the Operators Manual. You **MUST** read **ALL** the disclaimers and safety and other instructions in the Operators Manual before initially operating this product. Accordingly, no legal claims can be entertained on the basis of the data, illustrations or descriptions in this Quick Reference Guide.
- > This machine should not be operated by any person who isn't appropriately qualified or had the appropriate training.
- > Operation of this machine without periodic maintenance could cause it to malfunction. For more information please contact your JCB Dealer.

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Intended Use

General

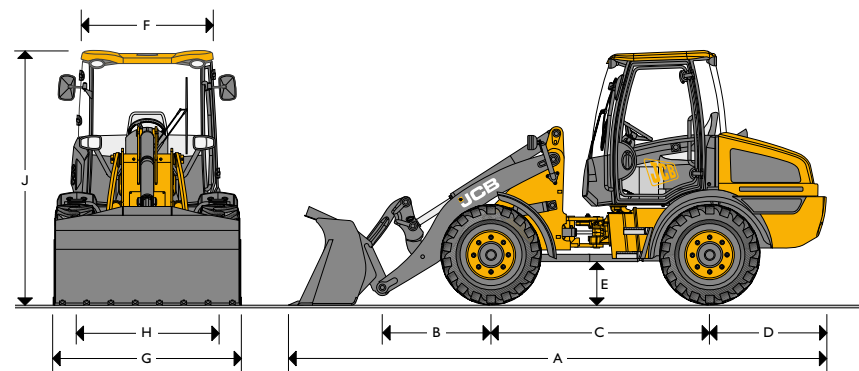
- > Machine Type – Compact Wheeled Loader
- > 406,407 &409 front end articulated Loader

Intended Use

- > Machine intended to be used in normal conditions
- > With bucket fitted, machine work cycle consists of digging and discharging of materials
- > Applications include earthmoving, road construction, building and construction, landscaping etc.
- > Can be used for object handling
- > Not intended for use in mining and quarrying applications, demolition, forestry and any explosive atmospheres
- > Must not be used with attachments of unknown weight, used on surfaces with unknown stability – list not exhaustive
- > PPE may be required in certain applications/environments e.g. high silica concentration or asbestos
- > The machine should not be operated by any person who isn't appropriately qualified or had the correct training
- > Prior to use, the machines suitability should be considered with regards to the intended applications and any hazards which may be present

Dimensions

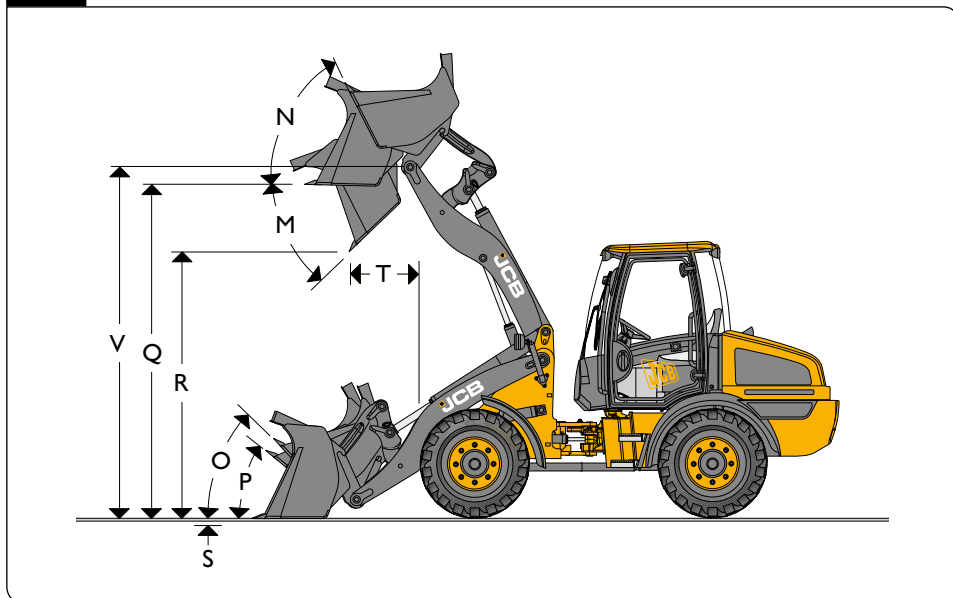
Fig 1



| Machine model | | 406 | 407 | 409 | |
|---------------|----------------------------|-----|-----------------------------------|-----------------------------------|--------------------------------------|
| A | Overall length | mm | 5133 | 5133 | 5465 |
| B | Axle to pivot pin | mm | 906 | 906 | 1130 |
| C | Wheelbase | mm | 2100 | 2100 | 2205 |
| D | Axle to counterweight face | mm | 1268 | 1268 | 1295 |
| E | Ground clearance | mm | 313 | 313 | 472 |
| F | Width over cab | mm | 1468 | 1468 | 1468 |
| G | Width over tyres | mm | 1727 | 1727 | 1898 |
| H | Wheel track | mm | 1390 | 1390 | 1490 |
| J | Height over cab | mm | 2500 | 2500 | 2643 |
| | Front axle weight | kg | 1475 | 1395 | 1850 |
| | Rear axle weight | kg | 3398 | 3668 | 4076 |
| | Total weight | kg | 4873 | 5063 | 5926 |
| | Engine | | JCB Kohler Mechanical 36kW (49hP) | JCB Kohler Mechanical 48kW (64hP) | JCB Kohler Mechanical 55.4kW (74hP) |
| | Transmission | | Hydrostatic 2 Speed | Hydrostatic 2 Speed | Hydrostatic 2 Speed (Option 3 speed) |
| | Axles | | Dana III | Dana III | Dana III |

Dimensions

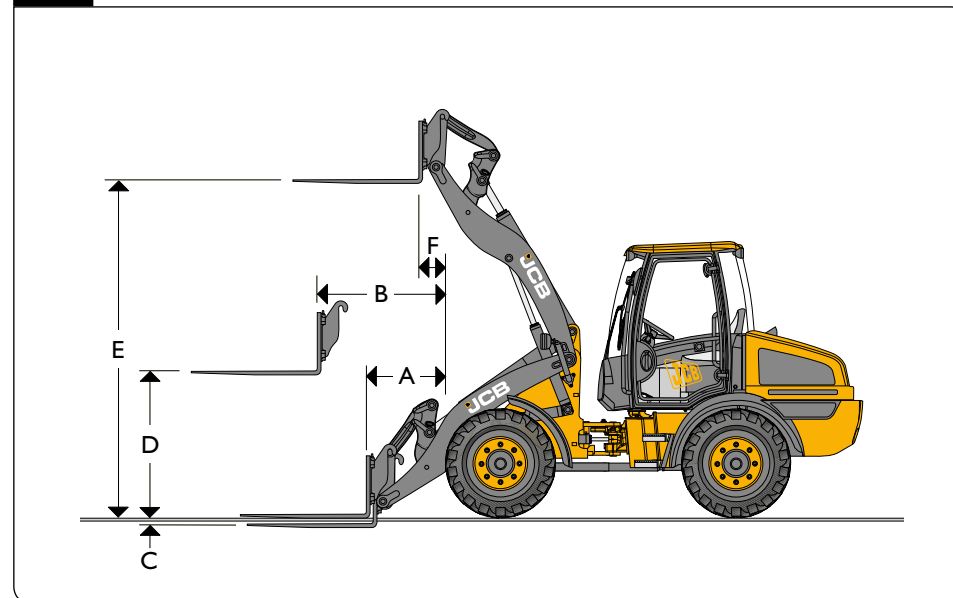
Fig 2



| Machine model | | 406 | 407 | 409 |
|---------------|------------------------------|-------------------|-------------------|-------------------|
| M | Dump angle maximum | degrees | 45 | 45 |
| N | Roll back angle full height | degrees | 56 | 63.6 |
| O | Roll back at carry | degrees | 54 | 53.1 |
| P | Roll back at ground level | degrees | 42 | 41 |
| Q | Load over height | mm | 2991 | 3189 |
| R | Dump height (45 deg dump) | mm | 2489 | 2552 |
| S | Dig depth | mm | 105 | 60 |
| T | Reach at dump height | mm | 764 | 599 |
| V | Pin height | mm | 3120 | 3340 |
| | Bucket type | General purpose | General purpose | General purpose |
| | Bucket equipment | Teeth or toeplate | Teeth or toeplate | Teeth or toeplate |
| | Bucket capacity (SAE heaped) | m ³ | 0.8 | 1.2 |
| | Bucket weight | kg | 287 | 358 |
| | Tipping load straight | kg | 4225 | 4503 |
| | Tipping load full turn | kg | 3250 | 3584 |

Dimensions

Fig 3



| Machine model | | 406 | 407 | 409 |
|---------------|------------------------------|-----|------|------|
| A | Reach at ground level | mm | 710 | 724 |
| B | Reach at arms horizontal | mm | 1232 | 1187 |
| C | Below ground level | mm | 84 | 17 |
| D | Arms, horizontal height | mm | 1426 | 1396 |
| E | Arms, max. height | mm | 3012 | 3231 |
| F | Reach at maximum height | mm | 506 | 231 |
| | Payload* | kg | 2033 | 2366 |
| | Tipping load straight | kg | 3184 | 3787 |
| | Tipping load full turn (40°) | kg | 2541 | 2907 |
| | Attachment weight | kg | 191 | 191 |
| | Fork carriage width | mm | 1345 | 1345 |
| | Length of tines | mm | 1200 | 1200 |

* At the centre of gravity distance 500mm. Based on 80% of FTTL as defined in ISO 8313.

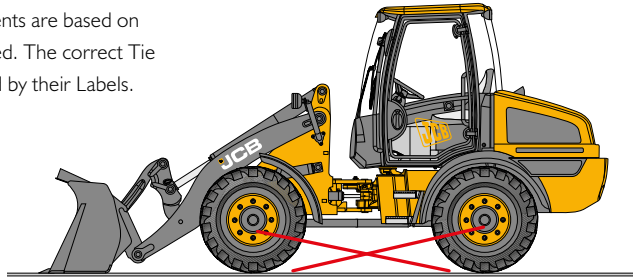
** FTTL from Calculation may vary after test work

Manual fork spacings at 50mm increments. Fork section 100mm x 50mm.

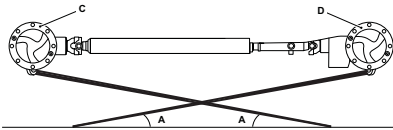
Machine Transport Procedure

Fig 4

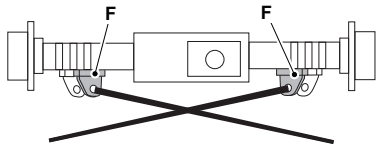
Note: These Measurements are based on a 2500mm wide trailer bed. The correct Tie down points are Identified by their Labels.



- A** Restraint Angular Range 8° to 11°
- B** Restraint Angular Range 40° to 50°
- C** Front axle
- D** Rear axle
- E** Tie Down Restraint
- F** Tie Down Point



Front Axle



Rear Axle

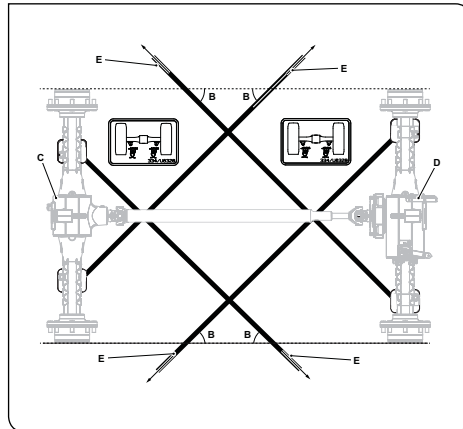
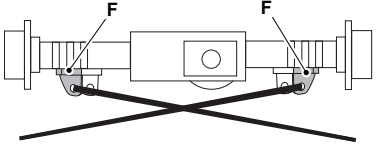
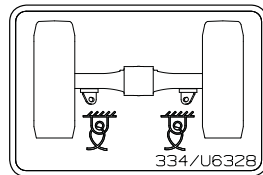


Fig 5

Tie Down Point Decal



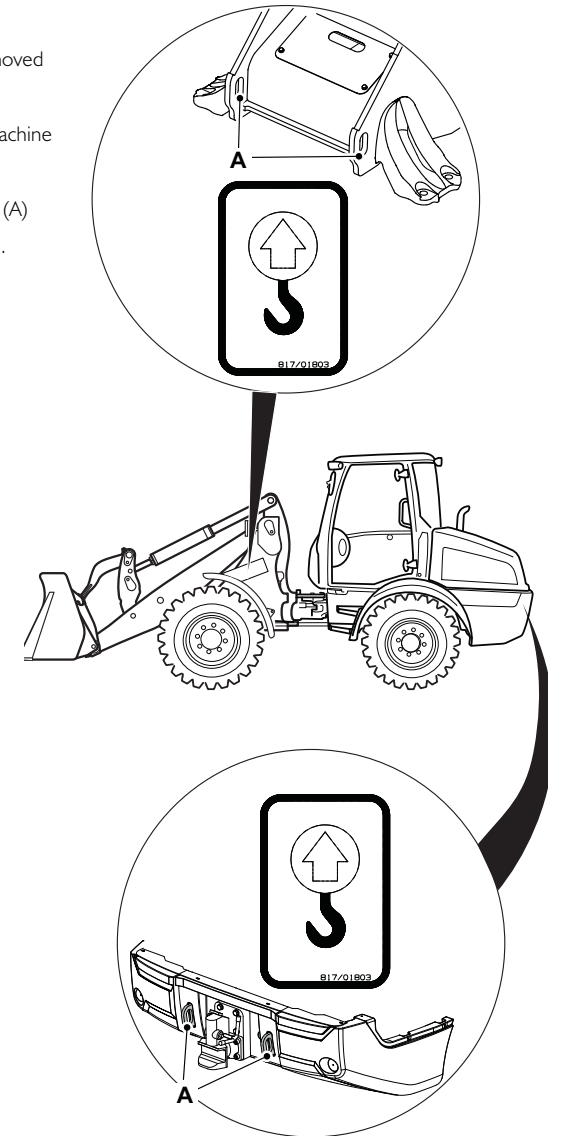
REFER TO OPERATORS MANUAL TRANSPORTING MACHINE

Lifting Points

Fig 6

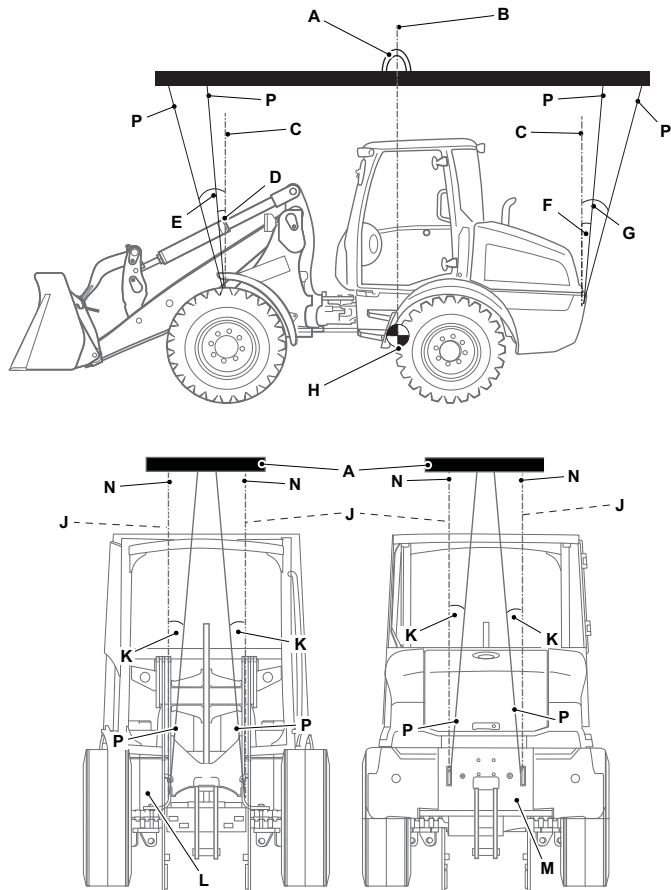
To Lift the Machine

1. All attachments need to be removed
2. Lower Boom
3. Remove all loose Items from machine
4. Check Un-laden weight
5. Use ONLY indicated Lift points (A)
6. Ensure the machine is Balanced.



Lifting Points

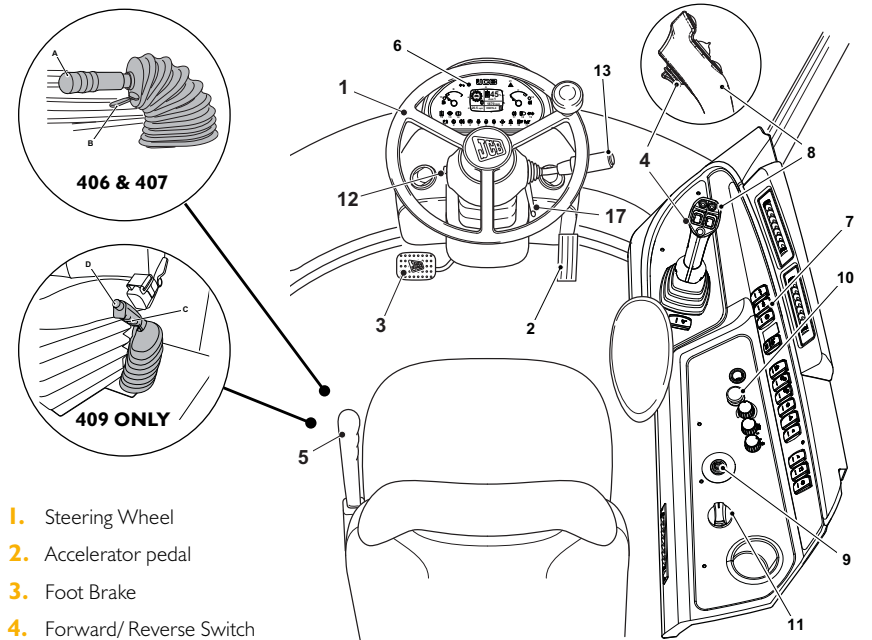
Fig 7



- A** H beam lifting spreader
- B** Centre line - centre of gravity
- C** Centre line - machine lifting point
- D** Lifting chain 5° minimum angle
- E** Lifting Chain 15° maximum angle
- F** Lifting chain 5° minimum angle
(To avoid damaging the machine)
- G** Lifting chain 15° Maximum angle
- H** Centre of gravity (For illustration only -
the position on your machine may vary)
- J** 0° angle maximum (Not shown)
- K** 5° Maximum angle
- L** Front of machine
- M** Rear of machine
- N** Perpendicular line - machine lifting point
- P** Lifting chain

Cab Layout

Fig 8

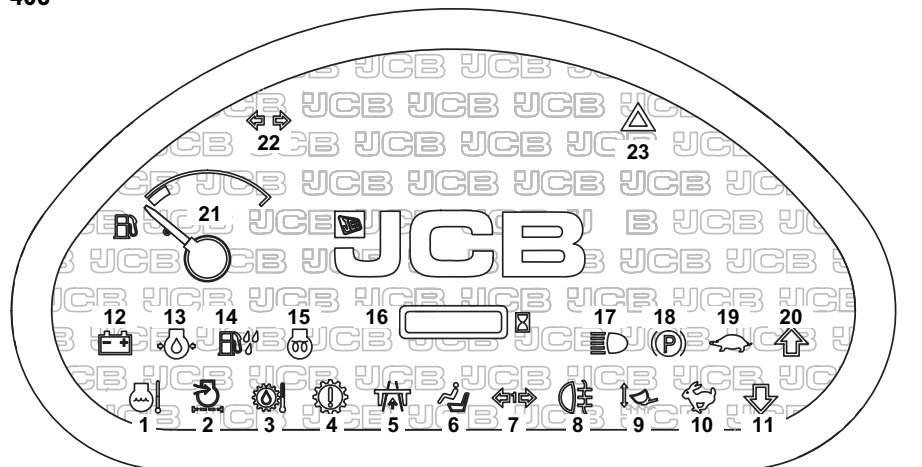


- 1.** Steering Wheel
- 2.** Accelerator pedal
- 3.** Foot Brake
- 4.** Forward/ Reverse Switch
- 5.** Park Brake Lever
- 6.** Instrument Cluster
- 7.** Right Hand console
- 8.** Operating Levers
- 9.** Ignition Switch
- 10.** Creep Speed
- 11.** Rotary Throttle (Option)
- 12.** Horn
- 13.** Multi Purpose Steering
Column Switch
- 14.** CAB Interior Light
- 15.** Speakers
- 16.** Front Window Blind
- 17.** Steering column Adjustment.

Cab Console Front – 406

Fig 9

406

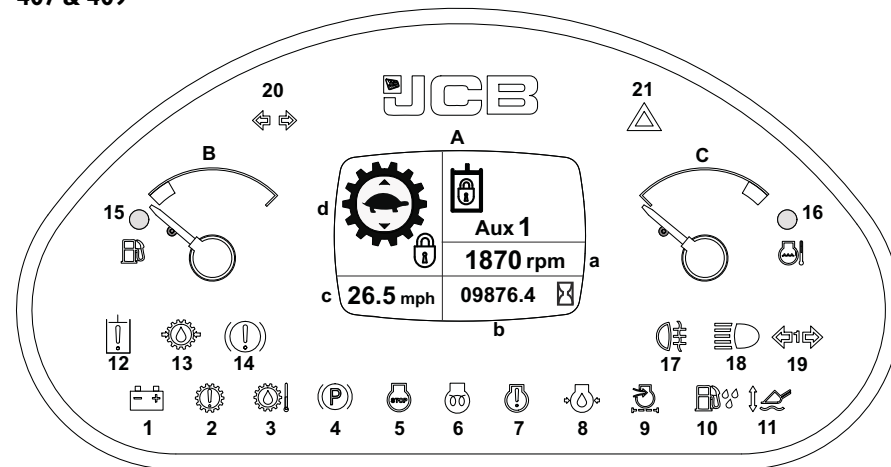


- | | |
|-----------------------------------|-------------------------------|
| 1. Engine coolant temperature. | 13. Engine Oil Pressure |
| 2. Engine Air Filter | 14. Water in fuel |
| 3. Transmission oil Temperature | 15. Engine Pre-heat |
| 4. Transmission Error/Fault | 16. Hour meter |
| 5. High Speed Roading | 17. Main Beam |
| 6. Operator out of seat | 18. Park Brake |
| 7. Trailer Direction indicators | 19. Low speed warning |
| 8. Rear Fog Light | 20. Forward direction Warning |
| 9. SRS If fitted | 21. Fuel Level |
| 10. High Speed Warning | 22. Direction Indicators |
| 11. Reverse Warning Light | 23. Hazard Warning |
| 12. Battery /Alternator no charge | |

Cab Console Front – 407 & 409

Fig 10

407 & 409

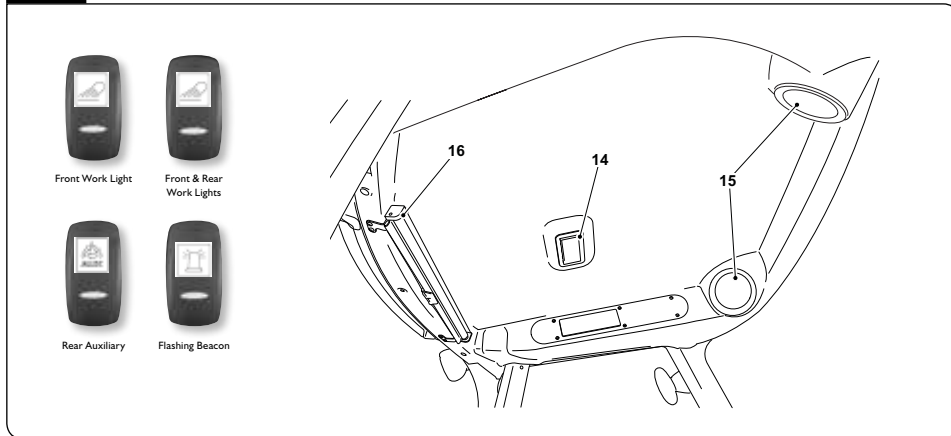


- | | |
|--|----------------------------------|
| 1. Battery/ Alternator No Charge | 13. Transmission oil Pressure |
| 2. Transmission Error/Fault (High Speed only) /Transmission Error Faults (Non High speed) | 14. Foot Brake |
| 3. Transmission oil Temperature | 15. Fuel Level |
| 4. Park Brake | 16. Engine Coolant Temperature |
| 5. Engine ECU Fault/ Stop | 17. Rear Fog Light |
| 6. Engine Pre-Heat | 18. Main Beam |
| 7. Engine Fault | 19. Trailer Direction Indicators |
| 8. Engine Oil Pressure | 20. Direction Indicators |
| 9. Engine Air Filter | 21. Hazard warning |
| 10. Water In Fuel | |
| 11. Smooth Ride system | |
| 12. Hydraulic Error/Fault | |
- A LCD Display
B Fuel Level Gauge
C Engine Temperature Gauge

Switching Options

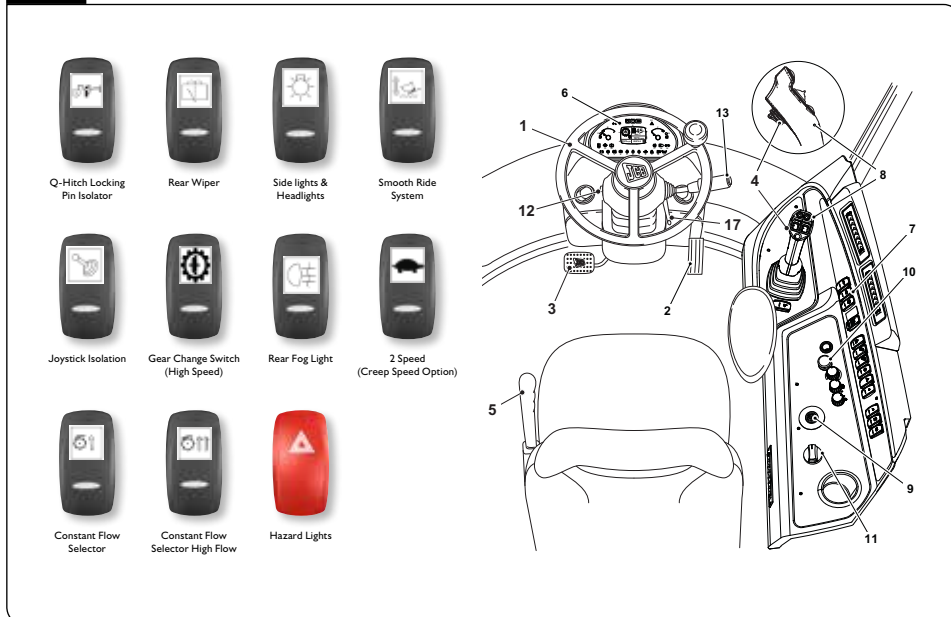
Roof

Fig 11



Right Hand Console

Fig 12



Start Up Sequence

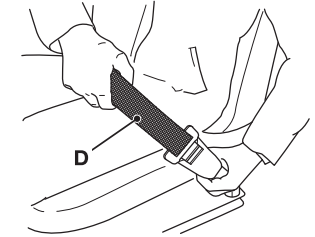
1 Insert Isolator Key

Isolator Key Located either outside or Under Bonnet.



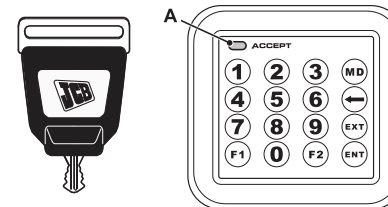
2 Apply Seat Belt, Check Neutral Controls

Check all Levers are in neutral position and fasten seatbelt.



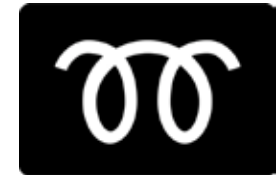
3 Key on & Dis Arm Immobiliser

Coded Key (Option) or Key Pad.
See Immobiliser Section



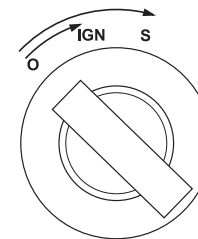
4 Engine Pre- Heat

Hold key in Position 1 for approximately 2-3 Secs and then start.



5 Start Machine

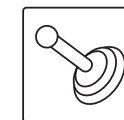
Turn Key though to position S once started key will spring Back to IGN position.



6 Activate Controls & Beacon



Independent Beacon switch.



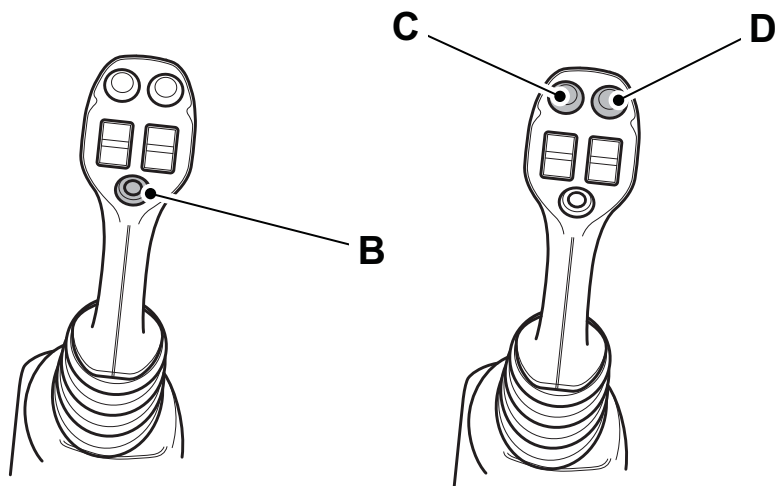
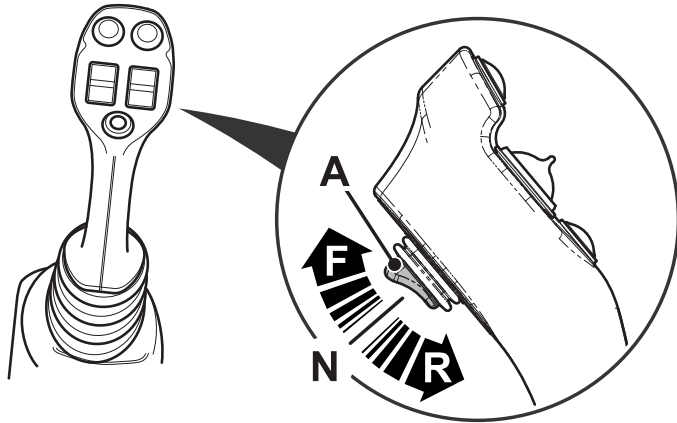
Press Isolator switch to activate Controls.

Machine Operation

Directional Control on Main Joystick

Fig 13

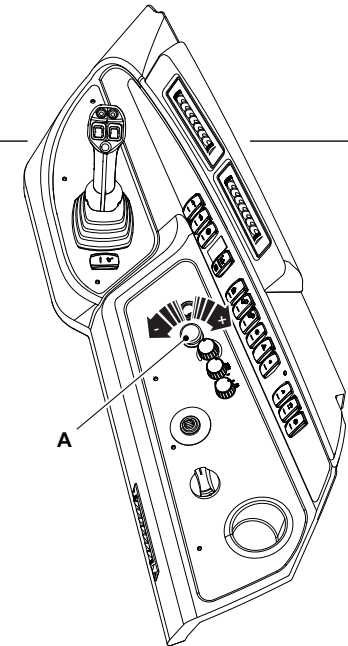
- A Direction Switch
- B Horn
- C Tortoise Switch
- D Hare switch.



Creep Speed

Fig 14

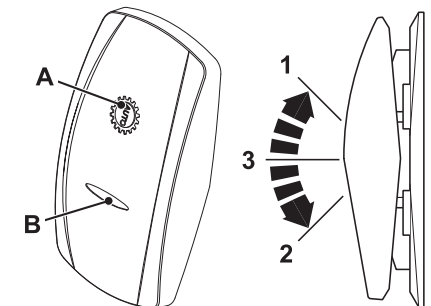
1. Select Creep Speed.
2. Select Forward drive.
3. Adjust Road speed adjust Knob A.
4. To Lock Setting Turn thumb wheel below clockwise, to unlock turn counter clockwise.



High Road Speed (option)

Fig 15

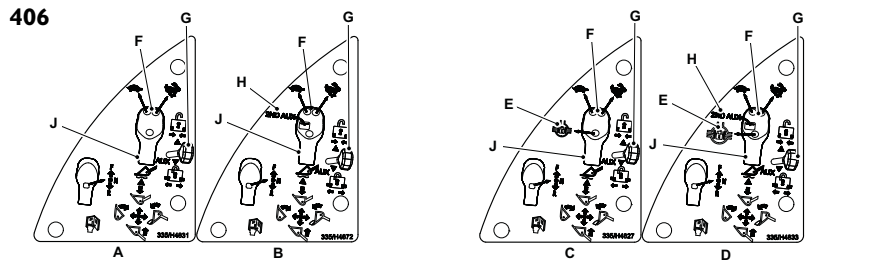
1. Travel in Hare mode approximately 6-20 kph. When display shows "+" High speed can be selected.
2. Push the gear change switch and High speed will be selected. Highway Icon shows on dash
3. Machine is in High speed until deselected.



To change Back to Hare Mode

1. Travel at 6-10 KPH. The "-" symbol will display adjacent to motorway symbol.
2. When the Gear change Icon is "On" push the switch to engage Hare speed.

Fig 16



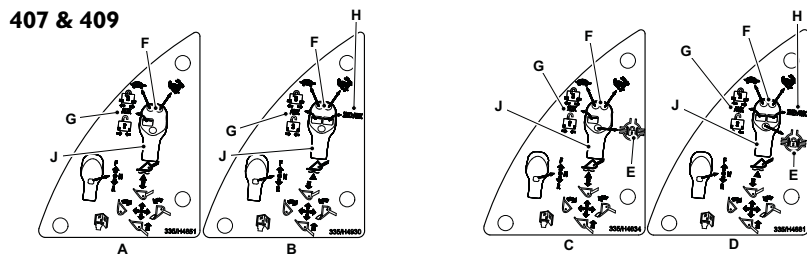
Manual Controls Decal

- A Single Spool Control Configuration
- B Twin Spool Control Configuration
- C Single Spool configuration with optional Locking differential.
- D Twin Spool configuration with optional Locking differential.

Manual Controls Decal With Differential Lock

- E Machine Option (Diff lock)
- F Tortoise/Hare Speed Range switches
- G Spool Control
- H Spool Control (Second Aux)
- J Control Lever.

Fig 17



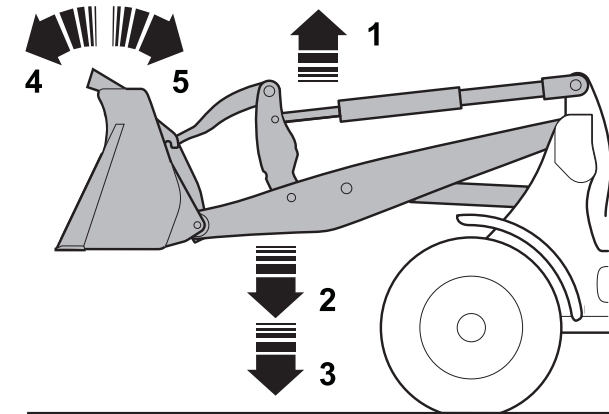
Servo Controls Decal

- A Single Spool Control Configuration
- B Twin Spool Control Configuration
- C Single Spool configuration with optional Locking differential.
- D Twin Spool configuration with optional Locking differential.

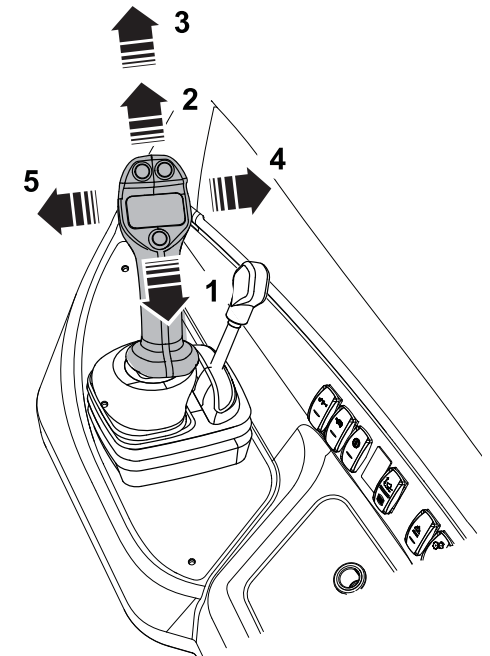
Servo Controls Decal With Differential Lock

- E Machine Option (Diff lock)
- F Tortoise/Hare Speed Range switches
- G Spool Control
- H Spool Control (Second Aux)
- J Control Lever.

Fig 18



- 1. Arm Raise
- 2. Arm Lower
- 3. "Float"
- 4. Empty "Dump"
- 5. Fill "Crowd"



CAUTION:
Do not use the 'float function' as a return to ground Detent. This can Cause Damage to Machine, cause instability and Injury to the Operator.

Machine Operation – Q-Hitch

Fig 19

Press and hold Q-hitch Switch and activate to “Unlock hitch” and release.

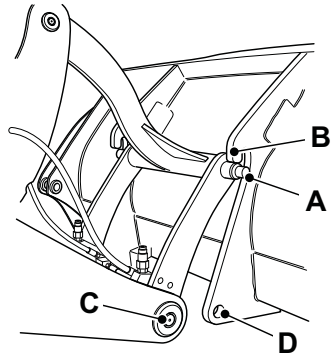
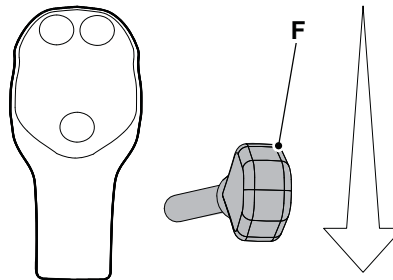


Fig 21

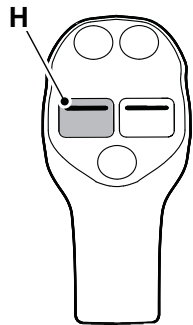
Locate Pin A into attachment and raise slightly. Then Crowd attachment onto Hitch Ensuring good location of Pin C into D.



Auxiliary Lever (If fitted)

Fig 20

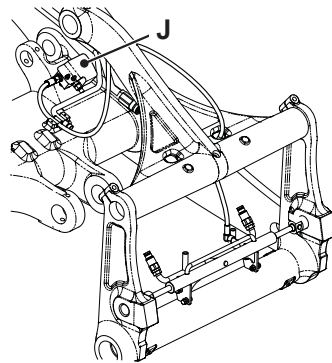
Operate Aux service to “lock on” attachment. Test attachment is mated to machine.



Servo Control Lever (If fitted)

Fig 22

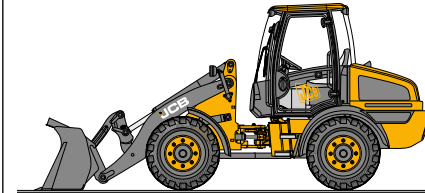
If Attachment requires Hydraulics coupling, Lower attachment to ground level. Turn off engine and vent Hydraulic system. Connect couplings and route hoses safely, ensuring Connectors are cleaned and secure.



Shut Down Sequence

1 Stop Machine

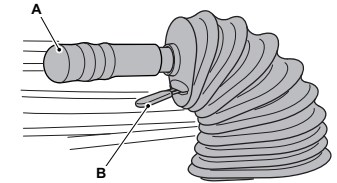
Park machine on dry Level ground.



It is the responsibility of the operator to make sure the machine is left in a safe & secure environment.

2 Apply Park Brake, Check Neutral

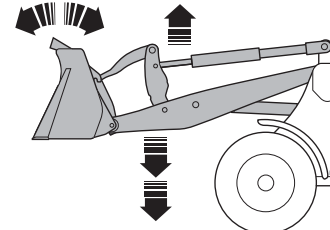
Bring the machine to a safe stop. Apply Hand brake and place transmission in Neutral.



407 & 409

3 Lower Arm / Attachment

Place Bucket/Attachment on ground and Isolate controls.



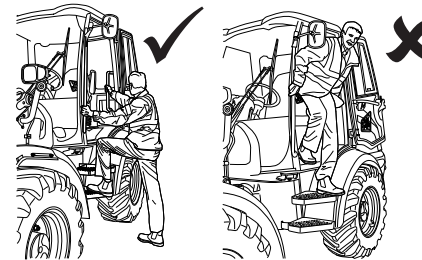
4 Key off & Remove

Turn Engine off, Turn to IGN on and Vent Hydraulic system.



5 Exit machine and Secure

Using 3 points of contact and then lock Door.



6 Remove Isolator Key

Isolator Key Located either outside or Under Bonnet.

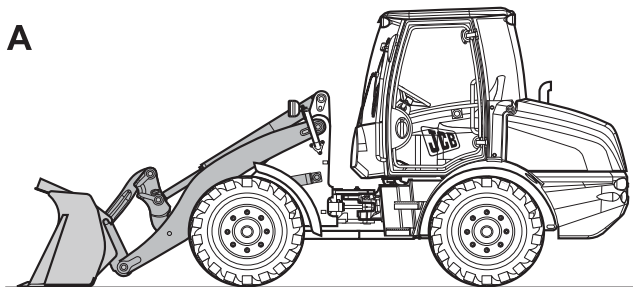


Maintenance Position

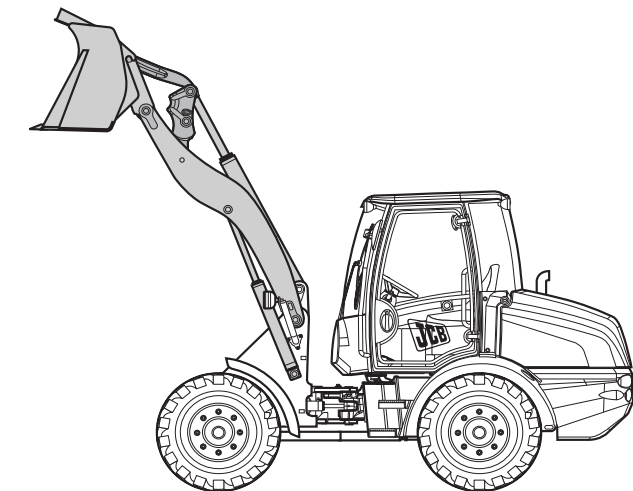
Fig 23

Machine Maintenance should be carried out by trained and qualified personnel.
Ensure the machine is parked safe level ground and Isolated.

A



B



1. Park machine In Either position A or B depending on task (position B requires safety strut).
2. Isolate and Vent machine, removing Key and Isolator.

Service/Maintenance

| Daily Checks (10h) | Checks |
|--|-------------------|
| Condition of attachment / optional equipment | Visual |
| Grease as required all points on machine (ref Operator handbook) | Physical |
| Check machine condition latches bonnets, | Visual / physical |
| Check in Cab switches and functions | Visual/physical |
| Check engine bay | Visual |
| Check engine oil | Physical |
| Check hydraulic oil (sight glass) | Visual |
| Check coolant levels | Visual |
| Check fuel separator (Drain if necessary) | Visual / physical |
| Check coolant pack for dust debris | Visual / physical |
| Check windscreen & washers fluid level | Visual / physical |
| Check operation of all services | Physical |
| Check operation of key items horn lights beacon | Visual / audible |
| Check operation of hour meter, | Visual |
| Check tyres and pressures | Visual / physical |

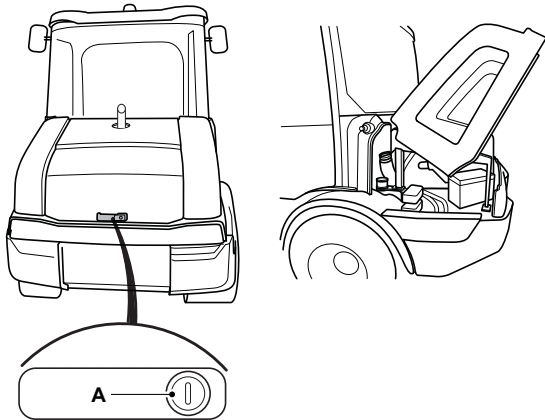
| Weekly Checks (50h) | Check |
|---------------------------------|--------------------|
| Grease machine where necessary | Physical or Visual |
| Check tyres and tread | Visual |
| Check machine hose and pipework | Visual |
| Check ram condition | Visual |

Access Covers

Engine cover

Fig 24

A Key lock (ignition key)



Hydraulic Oil & Washer Bottle

Fig 25

A Sight glass
B Hydraulic Oil Filler cap
C Washer Filler

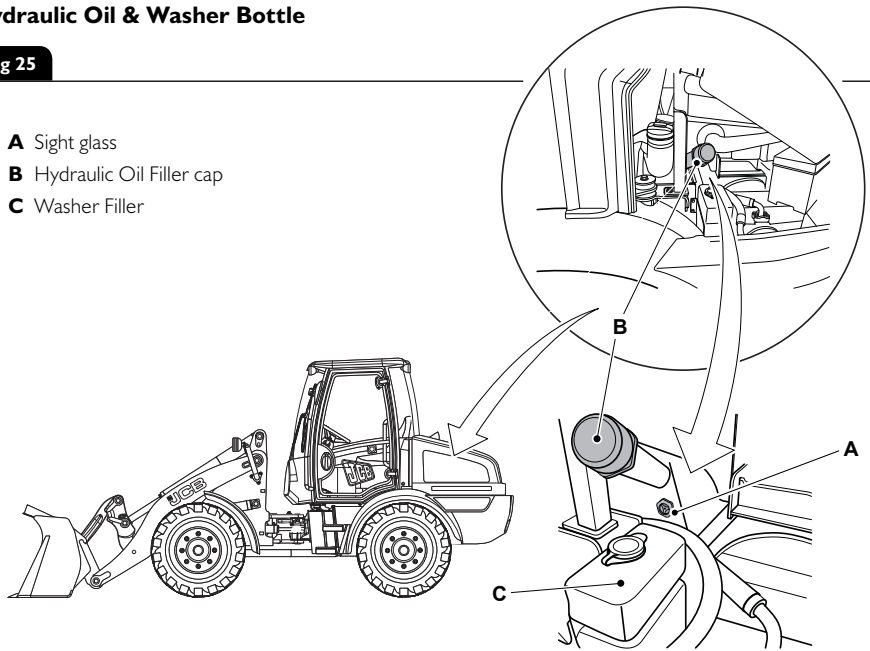


Fig 26

A Air Filter
B Fuel Filter

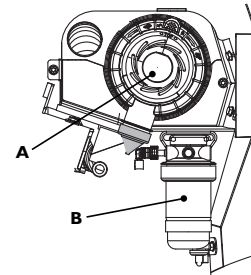


Fig 27

Secondary Fuses and relays location

A Relays
B Secondary Fuses

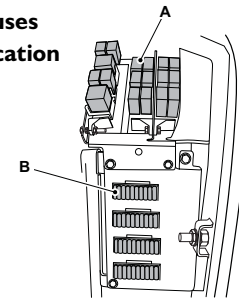


Fig 28

Coolant

A Filler

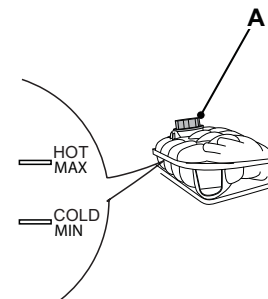
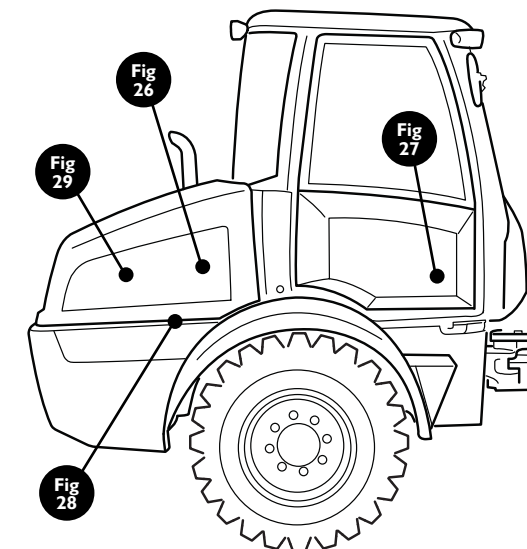
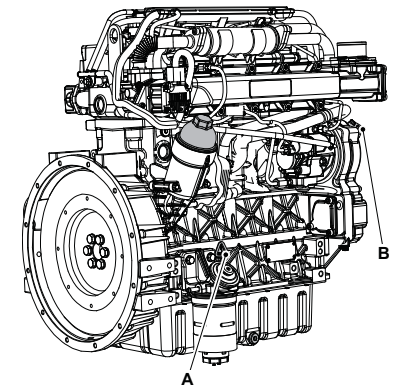


Fig 29

Engine Oil

A Engine Oil Dipstick
B Engine Oil Filler



Fluids and Lubricants

| Item | Capacity Litre (UK Gal) | Fluid / Lubricant | JCB Part Number | Container Size |
|-----------|----------------------------|-------------------|--------------------|-------------------|
| Fuel Tank | 80 (17.6) | Diesel | | |

| Engine (Oil) 406 Machines Only | | | 4001/1805 | 20 litres |
|---------------------------------------|-----------|---|-----------|-----------|
| Minimum | 11 (2.42) | JCB Extreme Performance 15W 40 (API CJ14,ACEA E6-E9,Low SAPS) Caution Do not use ordinary engine Oil | | |
| Maximum | 12 (2.64) | | | |

| Engine (Oil) 407&409 Machines Only | | | 4001/3005 | 20 litres |
|---|-----------|---|-----------|-----------|
| Minimum | 11 (2.42) | JCB Extreme Performance 10W 40 (API CJ14,ACEA E6-E9,Low SAPS) Caution Do not use ordinary engine Oil | | |
| Maximum | 12 (2.64) | | | |


| | | | | |
|-------------------------------|---------------------------|---|-----------|-----------|
| Front Axle (Includes Hubs) | 4.4 (0.96) | JCB Gear Oil HP | 4000/0505 | 20 litres |
| Rear Axle (includes Hubs) | 6.05 (1.33) | JCB Gear Oil HP | 4000/0506 | 20 litres |
| Hydraulic System | 70 (15.4) | JCB Hydraulic Fluid HPI5 | 4002/0503 | 20 litres |
| Inching system | Part of Braking system | JCB Hydraulic Fluid HPI5 | 4002/0503 | 5 litres |
| Grease points | | JCB Special HP grease or JCB Special MPL-EP Grease | 4000/2505 | |
| Electrical Connections | | To Prevent corrosion and moisture, Put Layer of petroleum jelly on all exposed connections | 4002/0503 | |

Machine Attachments

| Description | Weight (kg) | Intended Use | Hydraulic Requirements |
|--------------------|-------------|-------------------------------------|---------------------------|
| Q hitch | | To assist multi attachment users | Aux flow |
| Shovel (406) | | | |
| 0.8 Cu metre | 287 | GP shovel | |
| 1.0 Cu metre | 332 | GP shovel | |
| 1.2 Cu metre | 353 | GP shovel | |
| 6 in 1 Cu metre | 435 | GP shovel | |
| Q hitch forks | 191 | Unloading and movement | |
| Shovel (407 & 409) | | GP shovel | |
| 0.8 Cu metre | 287 | GP shovel | |
| 1.2 Cu metre | 353 | GP shovel | |
| 1.4 Cu metre | 384 | GP shovel | |
| 6 in 1 Cu metre | 435 | GP shovel | |

ATTACHMENT WEIGHTS ARE A GUIDE ONLY, ALWAYS CHECK YOUR OWN ATTACHMENTS

Troubleshooting/FAQs

| Issue / FAQ | Resolution/Answer |
|--|---|
| Machine will not start | Ensure all functions are in neutral, High flow is not engaged and Hand brake is applied before starting. |
| Machine Hydraulics will not operate | Ensure Engine is running, Hydraulics have been activated using the Isolation switch. <div style="text-align: right;">  <p>Joystick Isolation</p> </div> |
| Code not excepted by immobiliser | Ensure code is current and entered correctly, Be sure sequence is followed If locked out turn on ignition and leave for 15 minutes the system will reset to try again with current codes |
| Coded Key does not work | Ensure the key has not been near electrical items The coded key is up to date Use Coded key to re-programme extra keys Check Machine battery has charge to turn machine over. |
| Qhitch does not unlock | Check the Q hitch activation switch Ensure Hydraulics are active Check locking pins are free from debris and can mve freely check electrical connections |
| Quick release couplings do not engage | Check all pressure has been vented from Machine Check all pressure has been vented from attachment (over time attachments can creep) please store all attachments in the closed position. Check coupling are free from contamination and dirt |
| Machine will not drive | Ensure Hand brake has been released Check speed setting (start in Turtle) If engaging motorway mode be sure to follow procedure safely and seatbelt fastened. |

Your Notes



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Download the very latest information on this product range at: www.jcb.com

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Guidance and advice should always be sought from your JCB Dealer*. JCB reserves the right to change specifications without notice. Illustrations and specifications shown may include optional equipment and accessories.