

Quick Start Guide



Loadall

531-70, 541-70, 535-95, 533-105,
535v125, 540v140, 540-140,
540-170, 540-180, 540-200



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.

Index

Intended Use.....	4
Dimensions	5
Tie Down Points	6
Cab Layout.....	7-9
Controls	10-13
Steering Modes	14
Start Up Sequence	15
Shutdown Sequence.....	16
Connecting a trailer	17
Maintenance Position	18
Service Schedule	19-20
Service / Maintenance.....	21-22
Fluids & Lubricants.....	23
Attachments	24-26
Your Notes.....	27

Intended Use

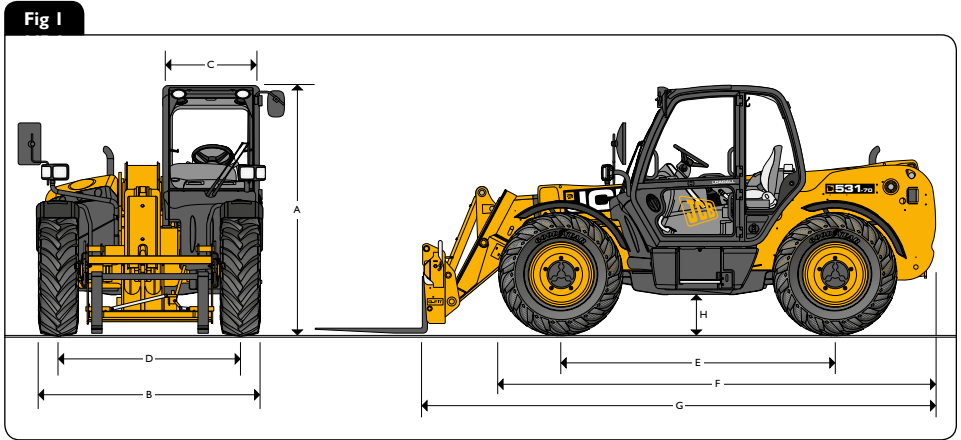
General

- > Machine Type – Rough Terrain Variable Reach Truck
- > Self propelled, seated operator, wheeled machine for operation on unimproved natural terrain and disturbed terrain.
- > A main structural support is designed to carry an extending boom with a carriage mounted on the front to which forks or an approved attachment can be fitted.
- > When used normally the machine lifts and places loads by extending/retracting, raising/lowering the boom.

Intended Use

- > The machine is intended to be used in normal conditions for the applications described in the operator's manual.
- > With forks fitted, machine work cycle consists of loading, moving and unloading material.
- > If the machine is used for other applications or in dangerous environments, for example in a flammable atmosphere or in areas with dust containing asbestos, special safety regulations must be obeyed and the machine must be equipped for use in these environments.
- > Make sure you follow the instructions outlined in the operator's manual of the mounted or trailed machinery or trailer. Do not operate the combination tractor-machine or tractor-trailer unless all instructions have been followed.
- > Do not use the machine to move or handle logs unless sufficient log protection is installed. You could cause serious injury to yourself and damage to the machine. For more information, contact your JCB dealer.
- > A wide range of optional attachments are available to increase the versatility of your machine. Only the JCB approved attachments are recommended for use with your machine. Contact your JCB dealer for the full list of approved attachments available.

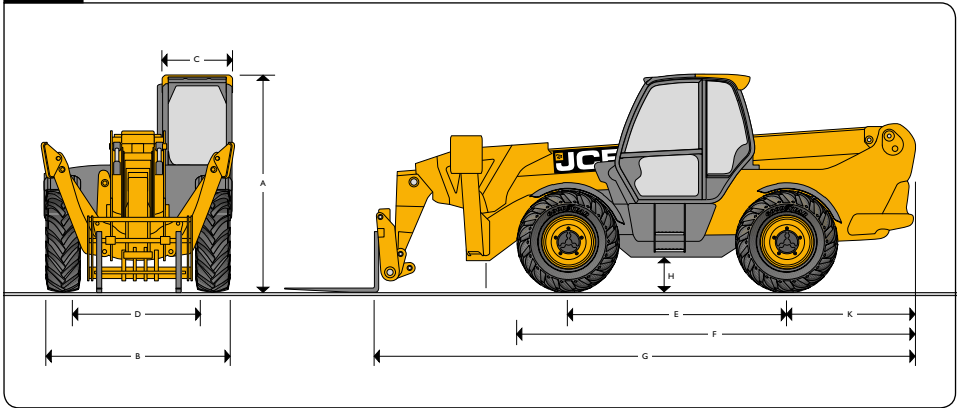
Dimensions



Machine model		531-70	541-70	535-95	
A	Overall height	mm	2490	2490	2,490
B	Overall width (over tyres)	mm	2230	2230	2,290
C	Inside width of cab (between windows)	mm	940	940	940
D	Front track	mm	1810	1810	1,870
E	Wheelbase	mm	2750	2750	2,750
F	Overall length to front tyres	mm	4380	4380	4,380
G	Overall length to front of carriage	mm	4990	4990	4,990
H	Ground clearance	mm	400	400	400
K	Centre of gravity (unloaded)	mm	1381	1420	1,515
	Weight	kg	7825	8320	8,800

Dimensions

Fig 2



Machine model		533-105	535v 125	540-140	540v 140	540-170	540v 180	540-200	
A	Overall height	mm	2,490	2,590	2,590	2,690	2,590	2,720	
B	Overall width (over tyres)	mm	2,290	2,350	2,350	2,440	2,460	2,440	
C	Inside width of cab (between windows)	mm	940	940	940	940	940	940	
D	Front track	mm	1,870	1,900	1,900	1,900	1,900	1,970	
E	Wheelbase	mm	2,750	2,750	2,900	2,750	2,750	2,750	
F	Overall length to front tyres	mm	4,380	4,740	5,180	4,740	5,080	4,720	5,090
G	Overall length to front of carriage	mm	5,380	5,800	6,250	6,230	6,360	6,305	6,810
H	Ground clearance	mm	400	400	400	400	400	400	410
K	Centre of gravity (unladed)	mm	1,311	1390	1536	1511	1548	1526	–
	Weight	kg	8,868	10,058	10,779	11,370	12,301	11,375	13,252

Tie Down Points

Fig 3

**Front position anchor point –
533-105, 535v125, 540v140, 540-140,
540-170, 540-180, 540-200**

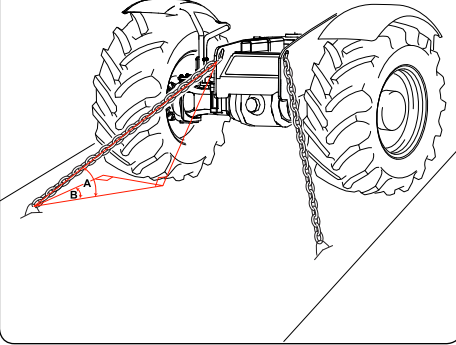


Fig 3

**Front position anchor point –
531-70, 541-70, 525-95**

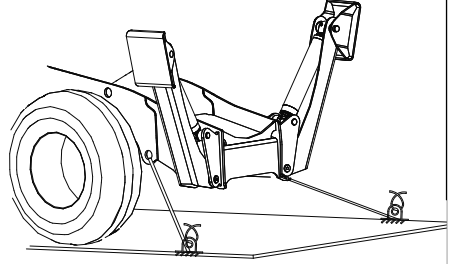
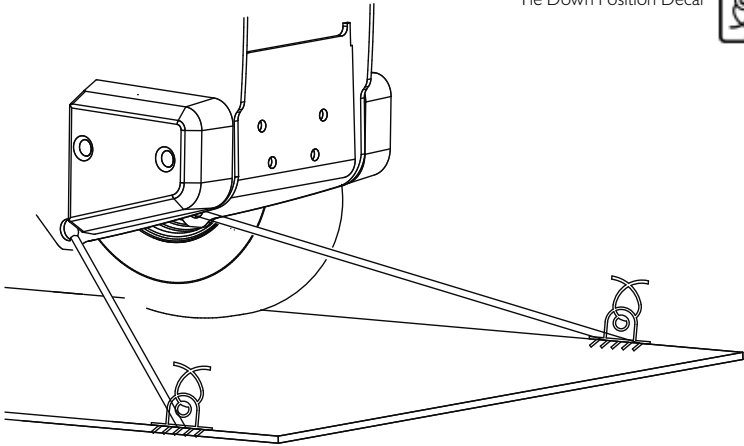


Fig 3

Rear position anchor point



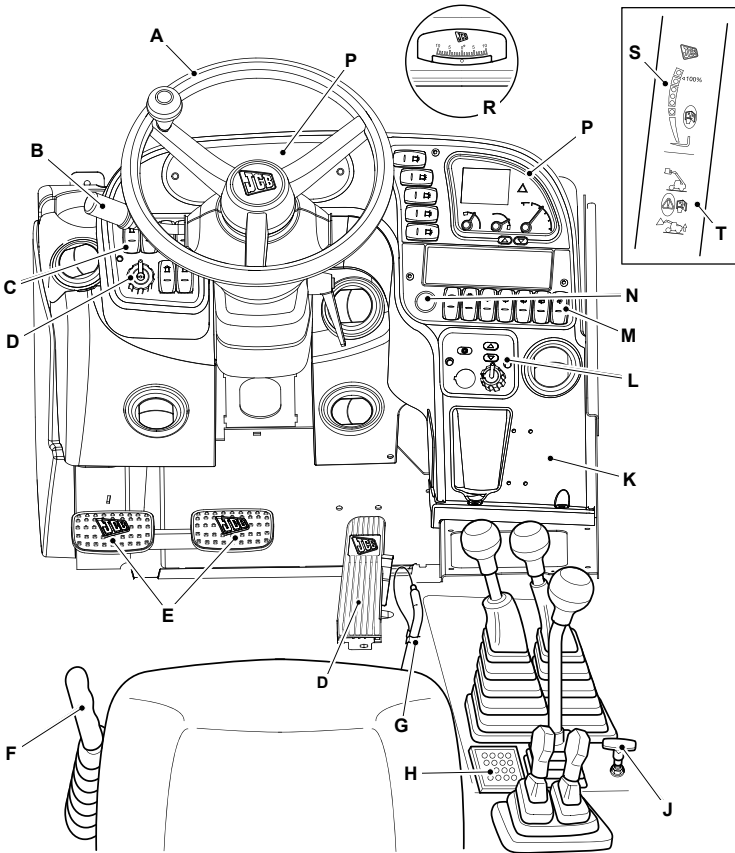
Tie Down Position Decal



REFER TO OPERATORS MANUAL TRANSPORTING MACHINE

Console switches

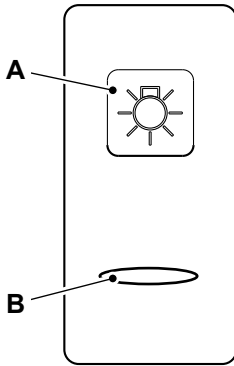
Fig 4



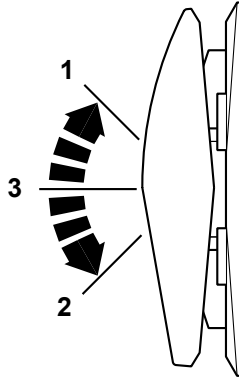
- | | |
|--------------------------------------|------------------------------------------------------|
| A Steering | K Load charts |
| B Transmission Lever and Gear | L HVAC (Heating Ventilation Air Conditioning) |
| C Console switches | M Console switches |
| D Steer mode selector | N Ignition switch |
| E Service brake pedal | P Instrument panel |
| F Park brake lever | R Inclinometer |
| G Control locks | S LLMI (Longitudinal Load Moment Indicator) |
| H Immobiliser Key Pad | T Load control system |
| J Hydraulic tow hitch | U Accelerator Pedal |

Cab & Joysticks

Fig 5



- A Switch Icon
- B Light



Road Lights

- 1 Off
- 3 Sidelights On (with sidelights on machine hours show on dash)
- 2 Headlights & Rear Tail Lights On (Ignition On)
- 2 Sidelights & Rear Tail Lights On (Ignition Off)



Rear Fog Lights

- 1 Off
- 2 Rear Fog Light On



Hazard Warning Lights

- 1 Off
- 2 On



Work Lights

- 1 Off
- 3 Front work lights On
- 2 Front / rear / hitch work lights On



Transmission Mode

- 1 Manual
- 2 Auto (Push then release)



Transmission Disconnect

- 1 Off
- 3 On
- 2 Engage (push then release)



Tilt Lock

- 1 Off (Backlight off)
- 2 Tilt Lock On (Backlight on)



Heater

- 1 Fan speed down (spring-loaded)
- 3 Default Position
- 2 Fan speed up (spring-loaded)



Window Heater

- 1 Heater rear/side windows Off
- 2 Heater rear/side windows On



Inner Boom Extend/Retract (540-170 only)

- 1 Inner boom extend/retract disabled
- 2 Inner boom extend/retract enabled



Controls Isolation

- 1 Off
- 2 On



Stabiliser Isolation

- 1 Off (Backlight off)
- 2 Stabiliser isolation On (Backlight On)



Chassis Levelling

- 1 Sway left – Push and hold the switch
- 3 Off
- 2 Sway right – Push and hold switch



Hydraulic Function

- 1 Enable the hydraulic function (turn to right)
- 2 Disable the hydraulic function (push)



Hydraulic Auxiliary Venting

- 1 Off
- 2 Service venting (ignition On, engine Off)



Reverse Fan

- 1 Off
- 3 Auto
- 2 Manual



Rear Window Wiper

- 1 Wiper Off
- 3 Wiper On
- 2 Washer On (push and hold)

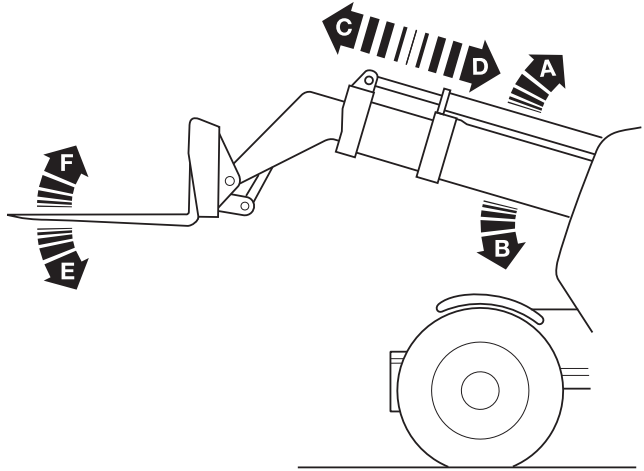
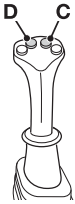
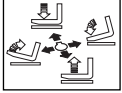
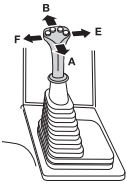


Stabiliser Isolation

- 1 Off (Backlight off)
- 2 Stabiliser isolation On (Backlight On)

Single Lever Manual Hydraulics Control

Fig 6



- A** Boom raise
- B** Boom lower
- C** Boom extend

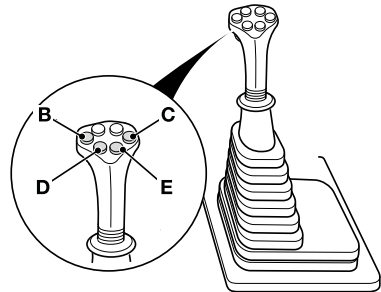
- D** Boom retract
- E** Carriage tilt forward
- F** Carriage tilt back

Fig 7

Auxiliary Control

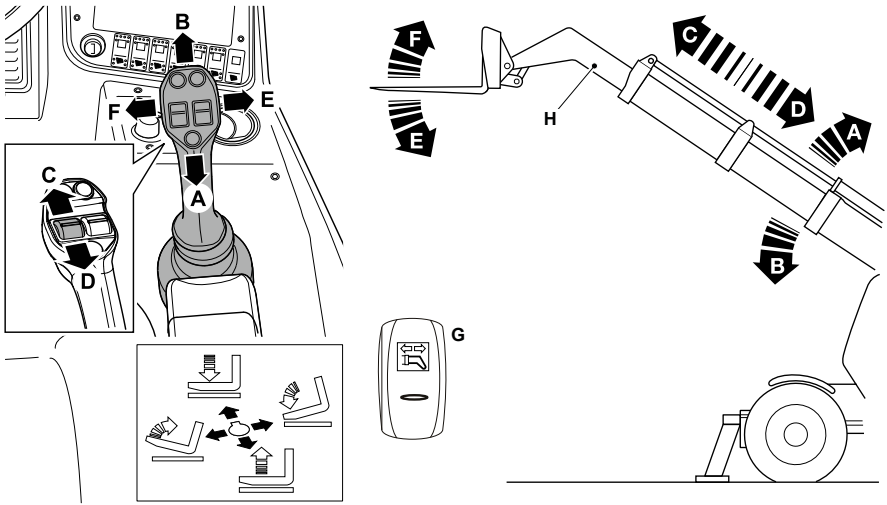
B/C Operate AUX 1

D/E Operate AUX 2



Single Lever Control

Fig 8



A Boom raise

B Boom lower

C Boom/inner boom extend

D Boom/inner boom retract

E Carriage tilt forward

F Carriage tilt back

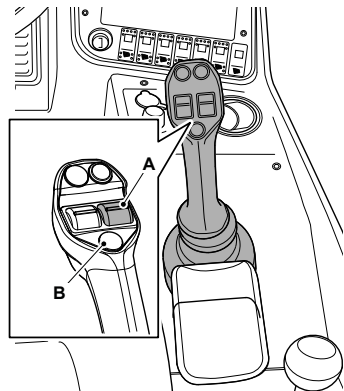
G Inner Boom Extend/ Retract switch (540-170 only)

H Inner boom

Fig 9

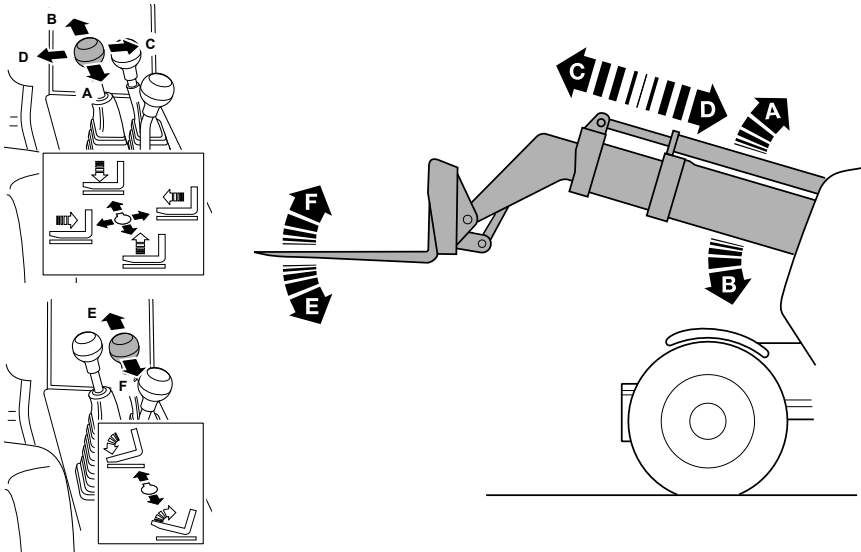
Auxiliary Control

Roll the thumb switch forward / backward to use desired function



Dual Lever Control (Placing Pattern)

Fig 10



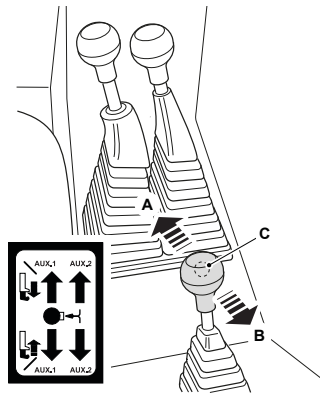
- A** Boom raise
- B** Boom lower
- C** Boom extend

- D** Boom retract
- E** Carriage tilt forward
- F** Carriage tilt back

Fig 11

Auxiliary Control

Move the control lever forward / backward to use desired function



Stabiliser & Sway Controls

Lower and Raise Stabilisers*

Fig 12

1. Park the machine on firm ground.
2. Turn off the stabiliser isolation switch (A).
3. Push the control levers (B) forward to lower the stabiliser legs (C).
4. Pull the control levers (B) back to raise the stabiliser legs (D).
5. Before you operate the boom, make sure the machine is level and stabiliser controls are isolated.

- A Stabiliser isolation switch
- B Stabiliser control levers
- C Stabiliser legs - lower
- D Stabiliser legs - raise

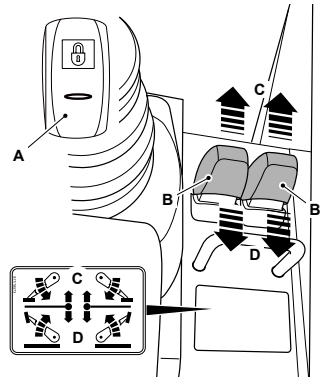
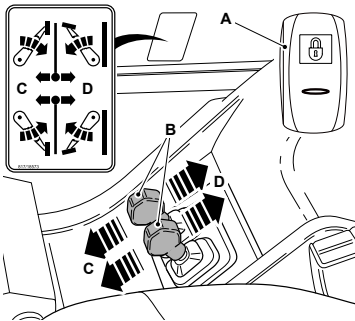
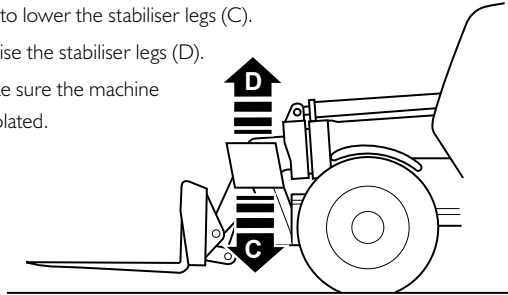
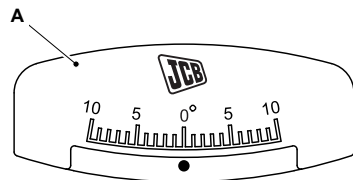
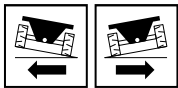


Fig 13

Chassis Levelling (Sway) Operation

To operate push and hold the rocker switch to either side until the machine shows as level on the inclinometer.

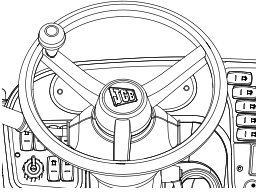


*where relevant

Pedals & Controls

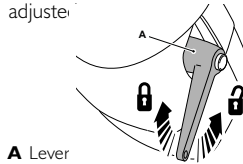
1 Steering Wheel

Turn in the direction you want to go.



2 Steering Column

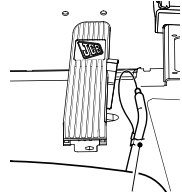
Turn lever (A) in counter clockwise direction to release column and adjust as required. The lever position can also be adjusted.



A Lever

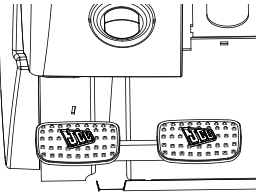
3 Accelerator Pedal

Push down to increase engine speed. The engine will idle without any pressure.



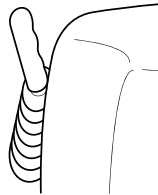
4 Service Brake Pedal

Push down to slow or stop the machine.



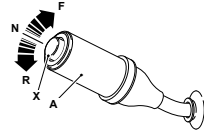
5 Park Brake

Use this lever to engage the park brake before leaving the machine.



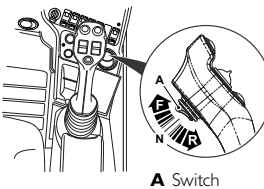
6 Transmission Drive Lever

3 Position drive lever. To operate: Stop the machine, apply brake, Let engine drop to idle. Select required direction, release brake and accelerate



7 Drive Selection Switch

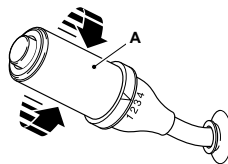
Optional 3 position switch. Operate in the same manner as the lever.



A Switch

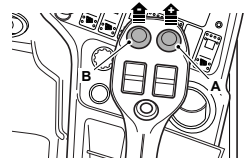
8 Gear Lever (Barrel Select)

Rotate the barrel (A) so the arrow aligns with the required gear.



9 Gear Changing (ECU)

Selected gear is displayed on the main display and can be changed down with button B, and up with button A.



10 Transmission Disconnect (Option)

Switch allowing you to disconnect the transmission to improve hydraulic performance.

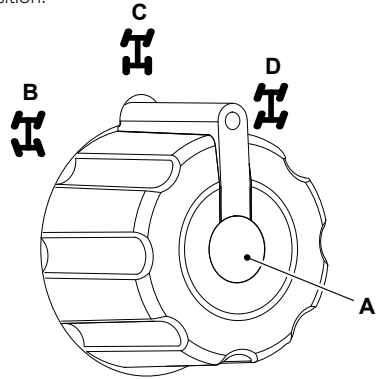


Vehicle & Steer Modes

Electronic Steer Mode Selector

Fig 14

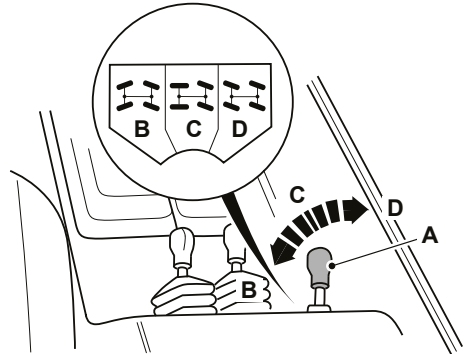
1. Stop the machine. Set the gear lever to the neutral position.
2. Use the switch (A) to select the steering mode:
 - B** 4 wheel steer
 - C** 2 wheel steer
 - D** Crab steer
3. Operate the steering wheel until the wheels straighten up to re-phase the mode.



Manual Steer Mode Selector

Fig 15

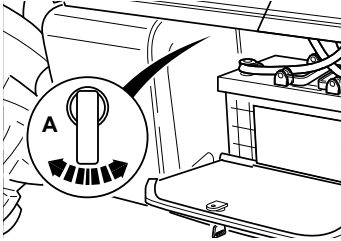
1. Stop the machine. Set the gear lever to the neutral position.
2. Use the switch (A) to select the steering mode:
 - B** 4 wheel steer
 - C** 2 wheel steer
 - D** Crab steer
3. Operate the steering wheel until the wheels straighten up to re-phase the mode.



Start Up Sequence

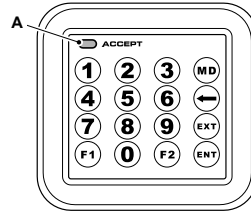
1 Insert Isolator Key (A)

Insert battery isolator key switch, push and turn 90 (degrees symbol)



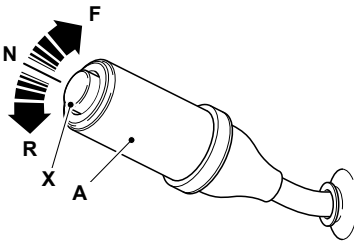
2 Disarm the immobiliser

If installed, clear with MD then key in the code followed by enter.



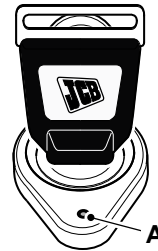
3 Set to Neutral

Put the forward / reverse lever into neutral.



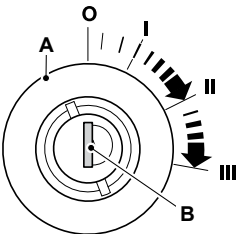
4 Insert Key

Insert key into ignition switch (A)



5 Start Machine

Turn the ignition key to the start position (position III) and hold it there until the engine starts.



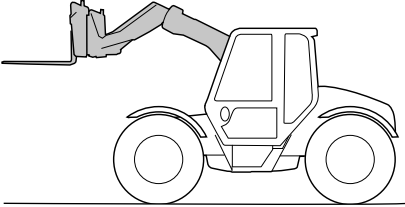
6 Operate Hydraulics

Operate the hydraulic services to make sure that each function is working correctly and to help warm up the hydraulic system.

Shutdown Sequence

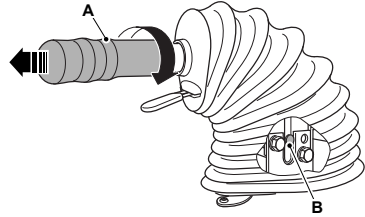
1 Stop the Machine

Park on safe level ground.



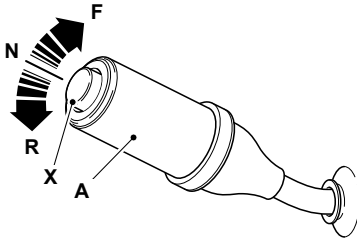
2 Apply the Park Brake

Lift up the lever (A) to apply the brake.



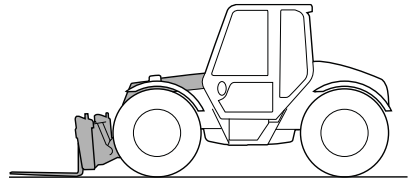
3 Set to Neutral

Put the forward / reverse lever into neutral.



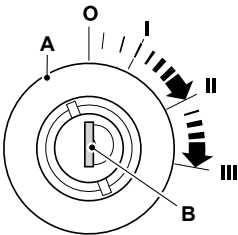
4 Lower Boom

Retract and lower the boom, resting the forks flat on the ground.



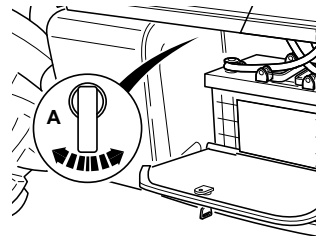
5 Key off

Turn off all switches. Remove the ignition key.



6 Exit Machine

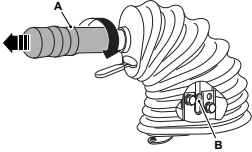
Exit the machine and remove the battery isolator key.



Connecting a Trailer

1 Apply the Park Brake

Adjust mirrors for a good view of tow hitch area.

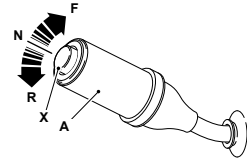


2 Align Trailer & Draw Bar

Ensure Trailer and draw bars are correctly positioned for engagement (Tow bar parallel with machine).

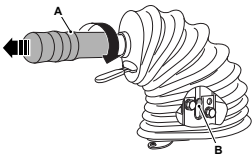
3 Approach Trailer

Align the hitch with the trailer towing eye.



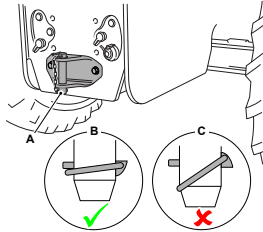
4 Stop Machine

Stop the machine. Apply the park brake.



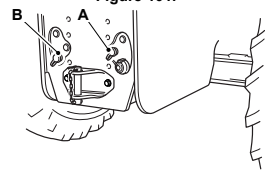
5 Engage Trailer

Engage the trailer and secure with the pin (A).



6 Connect Lights

Connect the trailer lights into the socket (A). Ensure they are working and visible. Refer to operators manual for more detail.

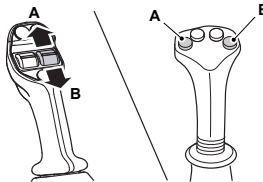


7 Connect Hoses

Connect auxiliary hoses to the coupling (B).

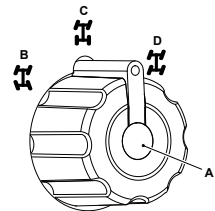
8 Select Rear Aux Circuit

Set switch to position I. Operate the auxiliary for the desired application.



9 Set Steering Mode

Select 2 wheel steering for use on public roads. 2WD is also recommended.

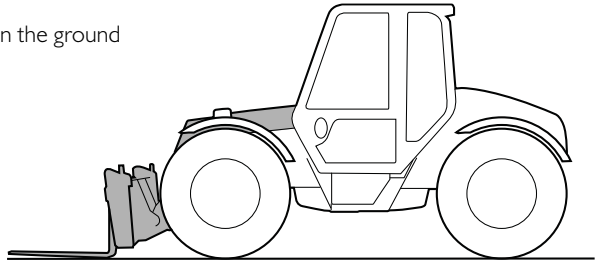


Maintenance Position

Maintenance Position – Boom Lowered

Fig 16

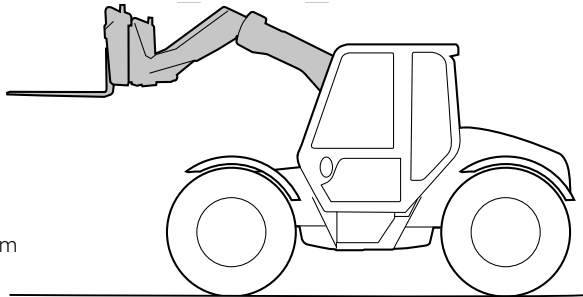
1. Park the machine on safe level ground
2. Lower the boom
3. Put the attachment flat on the ground
4. Apply the handbrake



Maintenance Position – Boom Raised

Fig 17

1. Make the machine safe
2. Retract lift arm
3. Raise lift arm
4. Apply handbrake
5. Stop engine and remove key
6. Install jury strut on lift ram



Service/Maintenance

Daily Checks (10h)	Check
Engine Coolant Quality and Level Check	
Engine Oil Level Check	
Transmission Oil Level Check	
Wheel Nut Security Check	
Tyre Pressures / Condition Check	
Wheel Alignment Check	
Brake System Fluid Level Check (Condition)	
Fire Extinguisher (if fitted) Check	
Wing Mirrors Condition and Security Check	
ROPS / FOPS Structure Check	
Windscreen Washer Fluid Level Check	
SWL Stickers (UK) and Flip Chart Renew as required	

Service/Maintenance

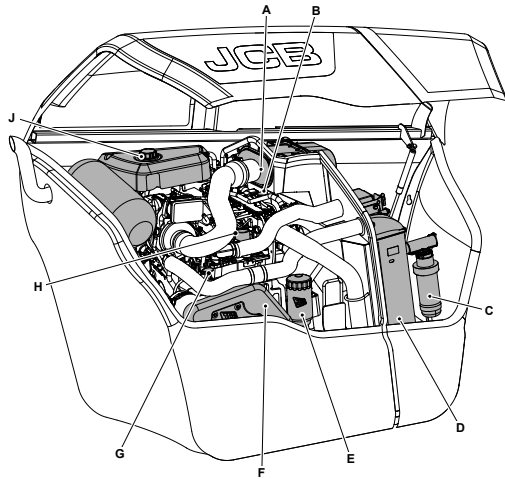
Weekly Checks (50h)	Check
Water Separator, Check for contamination and drain	
Axle Oil Level Check	
Axle Pivots and Linkages Grease	
Hydraulic Oil and Level Check	
Lift / Displacement / Tilt / Steer Cylinder Pivot Pins – Grease	
Pivot Pins - Grease	
Carriage Lock Pins Grease	
Boom Chains Oil	

Access Covers

Engine Compartment

Fig 18

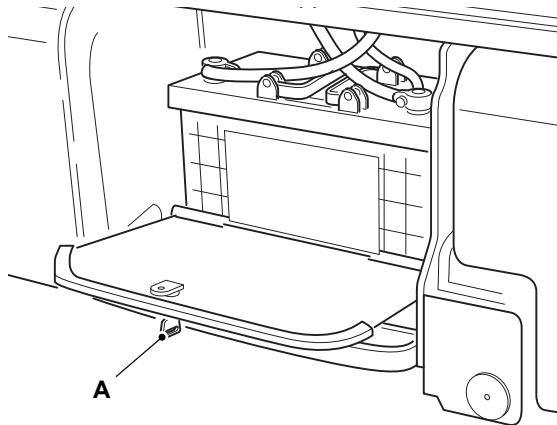
- A** Air Filter
- B** Transmission Oil Dipstick
- C** Water Separator
- D** Radiator
- E** Engine Oil Filter
- F** Drive Belt Guard
- G** Engine Oil Dipstick
- H** Engine Oil Filler Cap
- J** Coolant Expansion Tank



Battery Cover

Fig 19

1. Make machine safe
2. Use the key or undo bolts to unlock cover (A)
3. Open cover

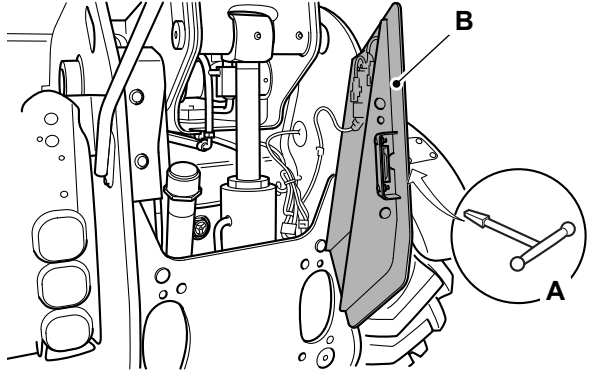


Access Covers

Rear Cover

Fig 20

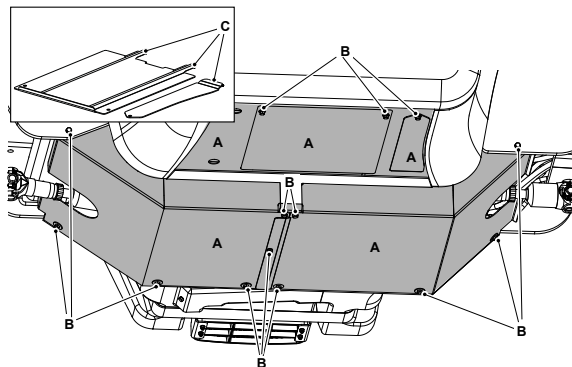
1. Make machine safe
2. Use the T-Bar (A) to unlock cover (B)
3. Open cover



Undershield

Fig 21

1. Make machine safe
2. Working under the engine compartment, support each of the three under shields (A) and remove bolts (B)
3. Lower the under shields to the ground



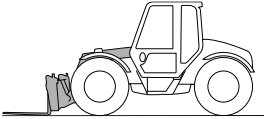
Fluids and Lubricants

Item	Capacity	Fluid / Lubricant	JCB Part Number
Fuel Tank	146L	Diesel Oil	Ultra Low Sulphur Diesel (EN590)
DEF Tank (Where applicable)	13.5L	DEF	ISO 22241
Engine Oil	12.5-15L (SJ & SL Engine 11.5-14L (FL Engine)	JCB Engine Oil UP 5W30	4001/3105
		JCB Engine Oil 5W40 (USA)	4001/3405
		JCB Engine Oil 10W30	4001/3005
Engine Coolant	28L (SJ & SL Engine) 25.5L (FL Engine)	JCB Antifreeze HP / Coolant + Water	4006/1120
Transmission (81kW)	Wet fill 11.5L Dry fill 13.5L	JCB Transmission Fluid EP 10W30	4000/2505
Transmission (55kW)	Wet fill 17L Dry fill 19L	Transmission Fluid EP 10W30	4000/2505
		JCB Transmission Fluid SAE30	4000/2506
Transmission (93 & 108kW)	Wet fill 21L Dry fill 23L	JCB Transmission Fluid EP 10W30	4000/2505
		JCB Transmission Fluid SAE30	4000/2506
Gearbox		JCB Transmission Fluid EP 10W30	4000/2505
Front axle housing	17.7L	JCB Gear Oil HP Plus	4000/2205
Hubs	2L		
Rear axle housing (531-70, 541-70, 535-95, 533-105)	10L		
Rear axle housing (540-140, 170, 200)	19L		
Rear axle housing (535-125, 535-140)	17.7L		
Brake System			
Hydraulic Tank (531-70, 541-70)	115L	JCB Optimum Performance Hydraulic Fluid 46 or 68	4002/2005 or 4002/2705
Hydraulic Tank (535-125, 535-140, 540-140, 540-180, 535V125)	127L		
Hydraulic Tank (535-95, 533-105)	125L		
Hydraulic Tank (540-140)	131L		
Hydraulic Tank (540-170, 540-200)	180L		
Grease points	As required	JCB Special HP Grease / JCB Special MPL EP Grease	40032
Wear pad runways	As required	JCB Waxoyl	4004/0502
Boom Hoses	As required	JCB Special HP Grease	4003/2017
Boom Chain (Where Applicable)	As required	JCB Chain Lubricant	4004/0237A

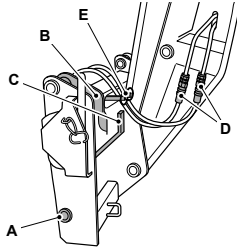
Connecting Attachments

1 Stop the Machine

Park on dry level ground.

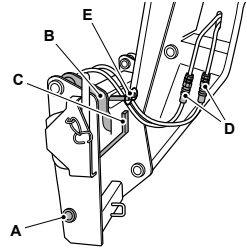


2 Withdraw Carriage locking pin (A)



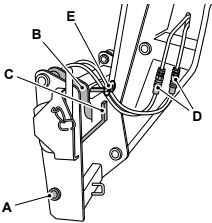
3 Align Carriage

Align with the attachment, just below the hook plates (B).



4 Engage Carriage Support Bar

Move the boom to engage the carriage support bar into the hook plates (B) equally.

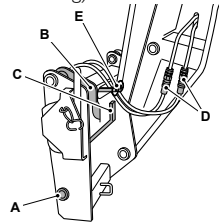


5 Align Locking Holes

Lift and tilt the carriage back, to align the locking holes. Lower the Attachment to the ground.

6 Operate Lock Lever (C)

Engage locking pin or operate the auxiliary control to move the locking pins (Hydraulic Pin Locking).

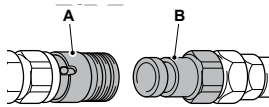


7 Prepare Hoses

Vent hydraulic system, check and clean hoses and adaptors.

8 Connect Hoses

Connect the male coupling (B) into the female coupling (A).



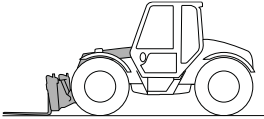
9 Attach Locking Pins

Attach locking pints to secure attachment hydraulic hoses to the carriage.

Disconnecting Attachments

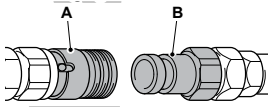
1 Stop the Machine

Park on dry level ground.
Lower Attachment to the ground.



2 Disconnect Hoses

Vent hydraulic system. Align ball (C) with slot (D) and pull back sleeve (E).

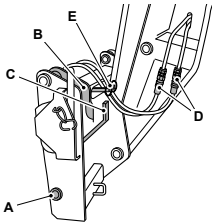


3 Remove Locking Pin

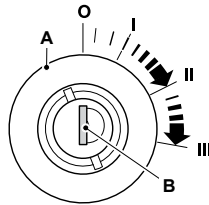
Remove locking pins to release attachment hydraulic hoses from the carriage.

4 Operate Lock Lever (C)

Unlock the locking pins (A) or operate the auxiliary control (Hydraulic Pin locking)



5 Start Engine

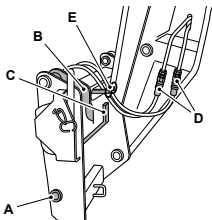


6 Tilt Forward

Tilt carriage forward to withdraw lower end of the carriage from the attachment.

7 Withdraw Carriage

Lower boom slowly to withdraw carriage from attachment hook plates (B).



8 Reverse Away

Reverse the machine away from the attachment.

Machine Attachments

Description	Intended Use	Hydraulic Requirements
Side Shift Carriage	Allows fork positioning ready for load pick-up and side shift of load when placing	Single Auxiliary
Fork Positioner	Allows width of forks to be easily adjusted	Single Auxiliary
Extension JIB	Gives the machine greater reach and height, for handling suspended loads	None
Roof Truss JIB	Gives the machine greater reach and height, for handling suspended loads with four positions	None
Fork Mounted Hook	Allows the machine to carry slung loads with safety	None
Shackle	Carriage mounted, it allows the machine to carry slung loads safely	None
Work Platforms	Provide a safe way for workers to access inaccessible areas at height	Twin Auxiliary
Shovels	General Purpose and specific shovels are available for a wide range of tasks	Model Dependant
680mm JIB	Gives the machine greater reach and height, for handling suspended loads	None



JCB Sales Limited, Rocoester, Staffordshire, United Kingdom ST14 5JP Tel: +44 1889 590312 Email: salesinfo@jcb.com

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

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any other means, electronic, mechanical, photocopying or otherwise, without prior permission from JCB Sales. All references in this publication to operating weights, sizes, capacities and other performance measurements are provided for guidance only and may vary dependant upon the exact specification of the machine. They should not therefore be relied upon in relation to suitability for a particular application.

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.