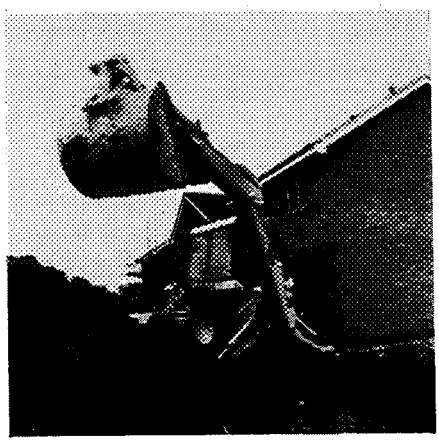
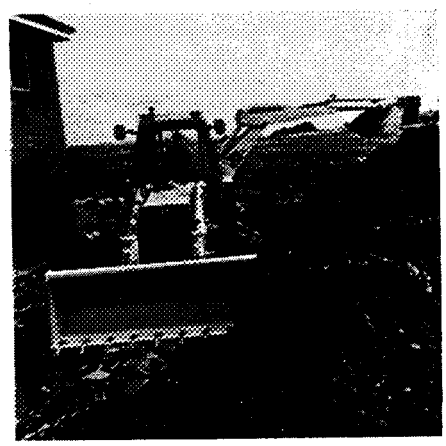
BACKHOE LOADER MANUAL





1400B (Centermount) • 1400B (Sideshift)
SITEMASTER • 1550B • 1600B • 1700B

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WARNING

Study This Manual Before Starting The Machine

You must understand and follow the instructions in this manual. Abide by all relevant laws and regulations. If you are unsure about anything, ask your JCB dealer or employer. **Do not guess**, you or others could be killed or seriously injured.

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In this manual and on the machine there are safety notices. Each notice starts with a signal word. The signal word meanings are given below.

[redacted]

⚠ WARNING

Denotes a hazard exists. If proper precautions are not taken you (or others) could be killed or injured.

CAUTION

Denotes a reminder of safety practices. May also direct your attention to unsafe practices which could result in personal injury or damage to the machine.

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HEATER CONTROLS

Hot air can be directed to the windshield and/or the cab floor by moving lever **B**. A heater control switch **A** *(if fitted)* controls a two-speed heater fan.

⚠ WARNING

Operate the air control only by hand using the lever. Do not try to move the shutter directly. Your hand *(or foot)* could get caught between the dump pedal and brake pedals.

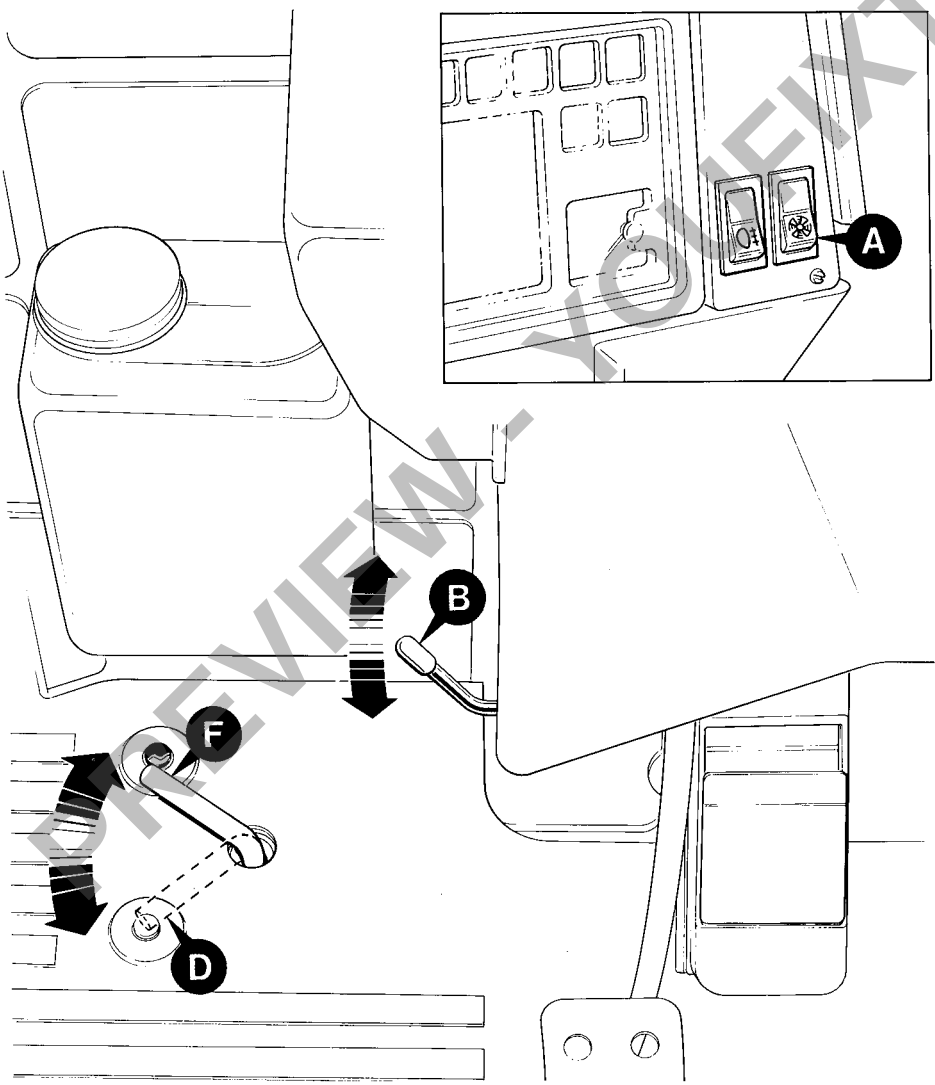
2-2-1-6

Air Control

Swing lever **B** upwards to direct more air to the windshield. Swing the lever downwards to direct more air to the cab floor.

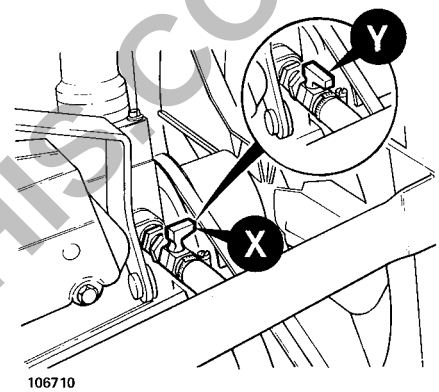
Heater Fan *(If fitted)*

Press switch **A** down to switch on the fan. Press further down for high speed. Functions only with the starter switch at **IGN**.



Heat control (Engine Mounted Tap)

Earlier type machines have a water shut-off tap mounted to the engine as shown. In hot climates the tap must be in the off position (shown at **X**) for cold air.



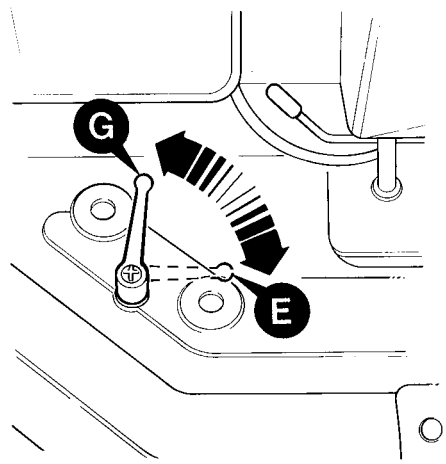
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In cold climates turn the tap to the on position (shown at **Y**) for warm air.

Heat control (Cab Floor Lever)

Some machines have a lever fitted inside the cab to control the heater. These machines do not have an engine mounted shut-off tap as described above.

In hot climates move the lever to the off position, shown at **D** (earlier machines) and **E** (later machines) for cold air.



In cold climates move the lever to the on position, shown at **F** (earlier machines) and **G** (later machines) for warm air.

8/90-5

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SEAT BELT

Checking the Seat Belt Condition and Security

WARNING

Replace the seat belt with a new one if it is damaged, if the fabric is worn, or if the machine has been in an accident. A damaged or stressed seat belt can result in death or injury to the operator. Fit a new seat belt every three years.

Inspect the seat belt for signs of fraying and stretching. Check that the stitching is not loose or damaged. Check that the buckle assembly is undamaged and works correctly.

Check that the belt mounting bolts are undamaged, correctly fitted and tightened.

ROPS/FOPS STRUCTURE

Checking the ROPS/FOPS Structure

WARNING

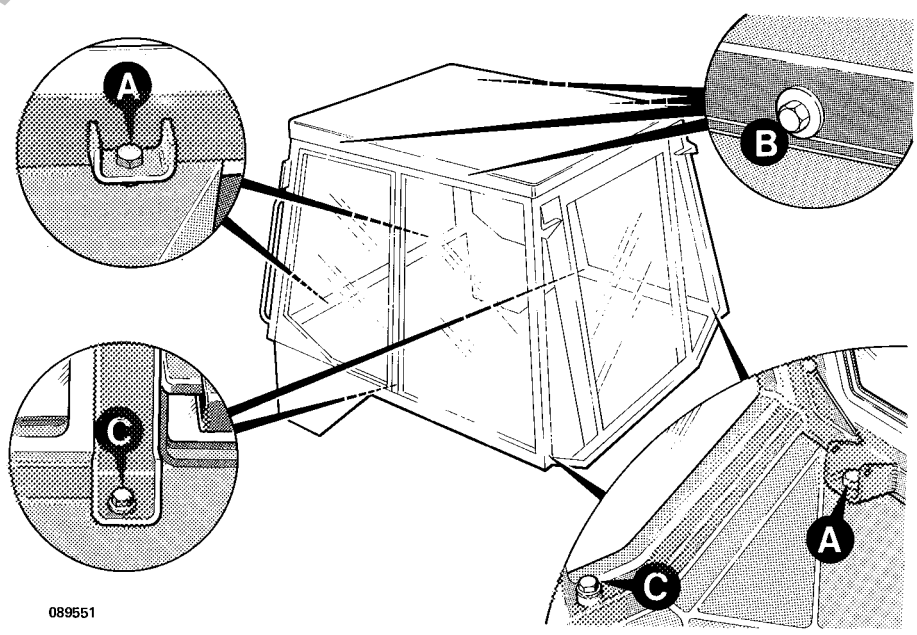
Modified and incorrectly repaired ROPS/FOPS structures are dangerous. Do not modify the ROPS/FOPS structure. If the ROPS/FOPS structure has been in an accident, do not use the machine until the structure has been inspected and repaired by a qualified person.

For assistance, contact your JCB dealer. Failure to take these precautions could result in death or injury to the operator.

Check the structure for damage. Check that the mounting bolts are installed and undamaged. Check the bolt torques. Tighten them to the correct torque if necessary.

Torque Settings

Bolts **A** 175 lbf ft (237 Nm)
Bolts **B** 20 lbf ft (27 Nm)
Bolts **C** 87 lbf ft (118 Nm)



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MODEL 1700B

GENERAL

Notice: Dimensional and operational specifications are based on 2WD unit equipped with 12.5L x 16 12PR Ribbed front tires, 19.5L x 24 10PR Industrial rear tires, 1.5 cu yd loader bucket, 24 in backhoe bucket and other equipment specified as standard on base machine.

TRANSPORT DIMENSIONS

Overall Length		
Backhoe in transit position	25 ft 3 in	(7.71 m)
Overall width		
Backhoe straight at loader bucket	8 ft 0 in	(2.44 m)
Wheel base	6 ft 11 in	(2.11 m)
Tread width		
Front	5 ft 11 in	(1.80 m)
Rear	5 ft 6 in	(1.67 m)
Height to top of standard backhoe		
Travel position	13 ft 10 in	(4.21 m)
Height to top of extending dipper		
Travel position	13 ft 7 in	(4.14 m)
Height to top of ROPS Cab	9 ft 3 in	(2.83 m)
Height to top of ROPS Canopy	8 ft 11 in	(2.72 m)
Ground clearance		
Centermount at kingpost	1 ft 5 in	(0.42 m)
Minimum at stabilizer pivot	11 in	(0.28 m)
Front axle on 2WD	1 ft 2 in	(0.36 m)
4WD	11 in	(0.28 m)

SHIPPING WEIGHT (APPROXIMATE)

	Complete backhoe loader with standard equipment and 24 in (610 mm) backhoe bucket		Complete backhoe loader with Extradig equipment and 24 in (610 mm) backhoe bucket	
Canopy	15,700 lb	(7,125 kg)	16,052 lb	(7,285 kg)
Cab	15,980 lb	(7,250 kg)	16,332 lb	(7,410 kg)
4WD (Add)	510 lb	(231 kg)	510 lb	(231 kg)

LOADER BUCKETS

Type	Capacities SAE Heaped	Capacities SAE Struck	Width	Weight	Optional Teeth
Standard	1.5 cu yd (1.12 m^3)	1.20 cu yd (0.90 m^3)	96 in (2.44 m)	1,442 lb (654 kg)	9
Optional Multipurpose	1.25 cu yd (0.96 m^3)	0.95 cu yd (0.73 m^3)	96 in (2.44 m)	1,702 lb (772 kg)	9

	Minimum Clamping Force	Jaw Opening Width
Multipurpose	6,490 lbf (2,950 kgf)	3 ft 1 in (0.95 m)

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THE JCB BACKHOE LOADER

The aim of this part of the manual is to introduce you to the machine you will be operating. The main parts of the machine will be named and identified. What they do and how they do it will be briefly explained. Some perhaps unfamiliar words used later in this manual will also be explained.

Your JCB dealer will gladly give you more information if you want it.

General Description

The JCB Backhoe Loader is a mobile digging and loading machine. With optional attachments it can do many other jobs; for example lifting, breaking, drilling and pole planting. The machine is based on a steel main frame carrying a one-man cab. Power is provided by a four cylinder diesel engine driving through a JCB Syncro Shuttle transmission unit to the road wheels. Some models can be operated in either two- or four-wheel drive.

The steering and brakes are hydraulically powered. So too are the digging tool *(backhoe)* and loading tool *(loader).* Two hydraulically powered stabilizers are provided. These must be used when operating the backhoe. Hydraulic power is provided by pumps driven from the engine.

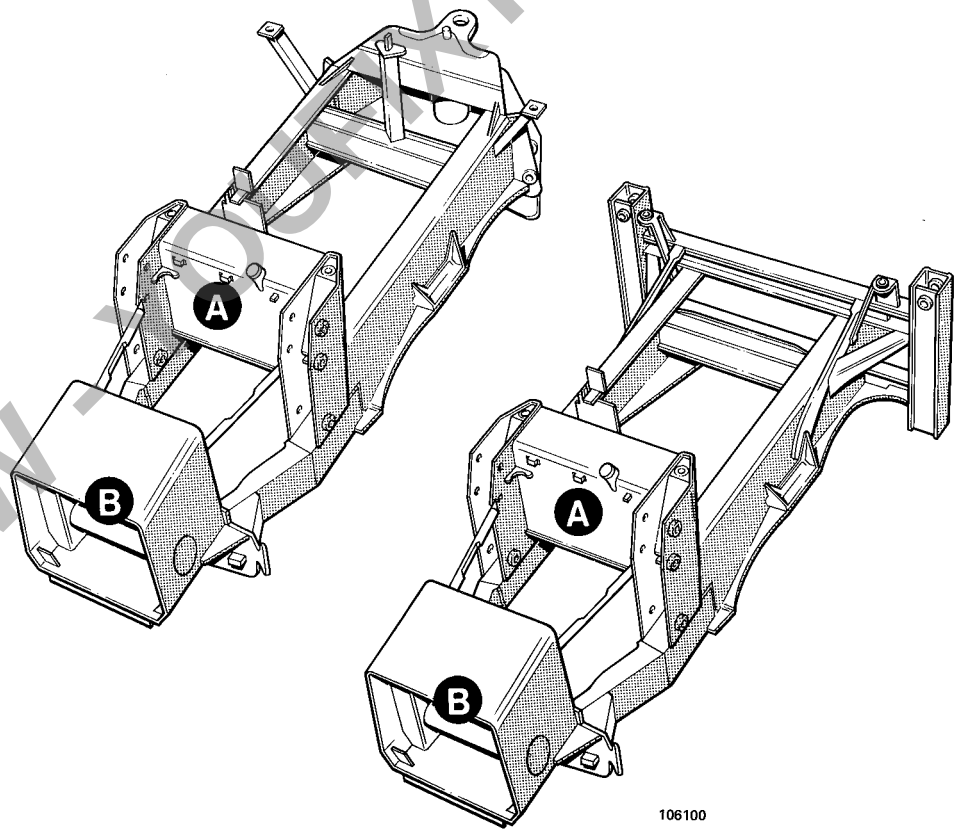
Main Frame and Cab

The main frame is a very strong and rigid construction of steel box sections. The fuel tank **A** and hydraulic tank **B** are built into the frame, to add stiffness and save space. (See illustrations.)

The cab floor is attached to the main frame by flexible mounts. Protection for the operator is either an open canopy or a fully glazed cab. Both versions are safety structures - each is a Roll Over Protective Structure (ROPS) and a Falling Object Protective Structure (FOPS).

On the glazed cab, two doors are provided, together with fully opening rear and side windows. The doors and windows can be latched partly open. All the controls for operating the machine are inside the cab, with the backhoe controls by the rear window.

The seat is adjustable for operator comfort and can be rotated to position the operator by the backhoe controls or the driving and loading controls.



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Backhoe quick-hitch	219-221
Loader quick-hitch	222-226

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GREASING (50 HOURS)
(continued)

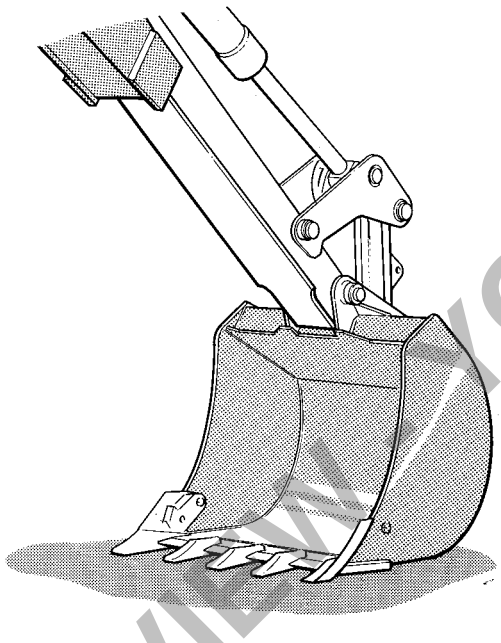
Extending Dipper
(Without Replaceable Wear Pads)

CAUTION

JCB Extradig dipper lubricant contains 1.53% lead. The repeated swallowing of very small quantities can cause chronic lead poisoning. Do not smoke or touch food while handling this lubricant. Dispose of waste (rags etc.) in accordance with local regulations.

2-1-1-8

Extend the dipper. Coat the runners with **JCB Extradig Dipper Lubricant** as shown.



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Extending Dipper
(With Replaceable Wear Pads)

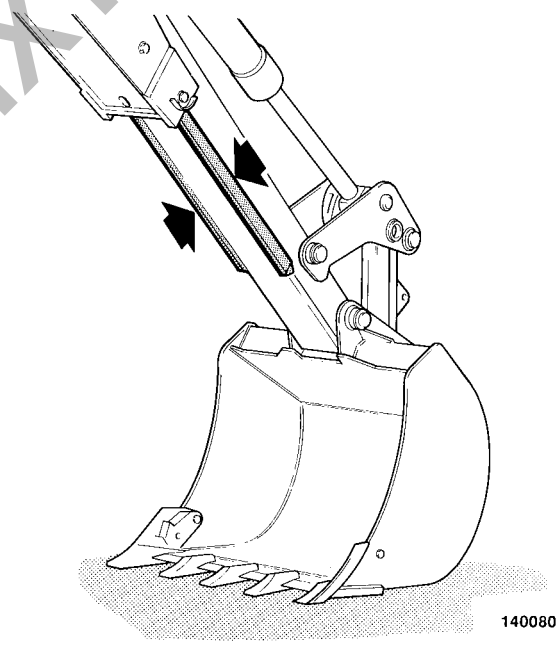
CAUTION

Waxoyl contains turpentine substitute, which is flammable. Keep flames away when applying Waxoyl. Waxoyl can take a few weeks to dry completely. Keep flames away during the drying period.

Do not weld near the affected area during the drying period. Take the same precautions as for oil to keep Waxoyl off your skin. Do not breathe the fumes. Apply in a well-ventilated area.

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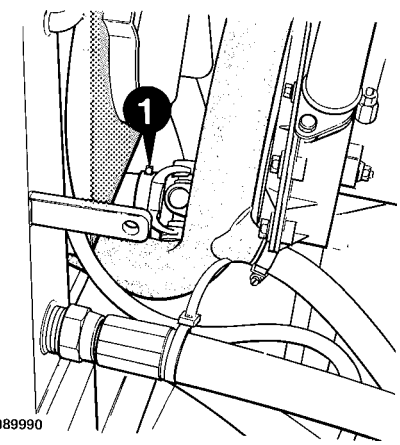
Extend the dipper. Coat the runners with Waxoyl as shown.



140080

Hydraulic Pump Driveshaft

1 Grease Point *(If fitted)*



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BACKHOE CLAMPS (Sideshift Machines Only)

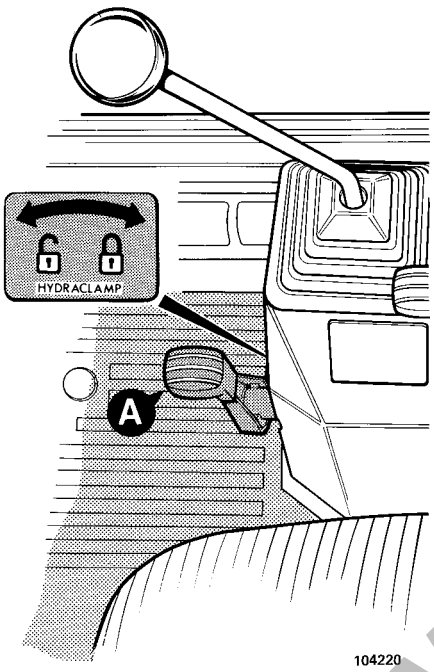
On sideshift machines, the kingpost clamps *(Hydraclamp)* are released by pushing lever **A** towards the back of the machine. A nearby decal shows the lever movements and clamp actions. For detailed instructions on operating the clamps see **Sideshifting the Backhoe** on Page **109**

Tighten Clamps

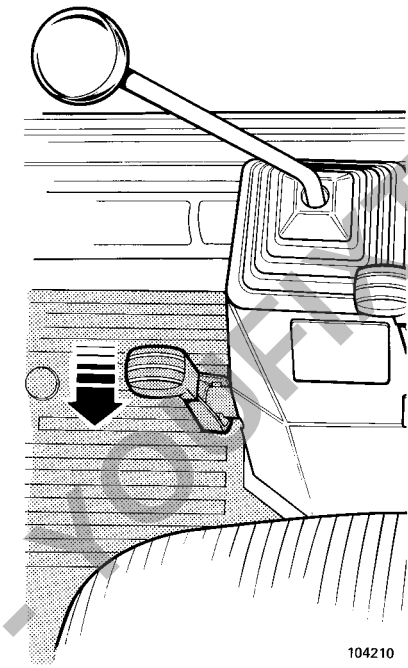
To tighten the clamps, pull the lever towards the front of the machine.

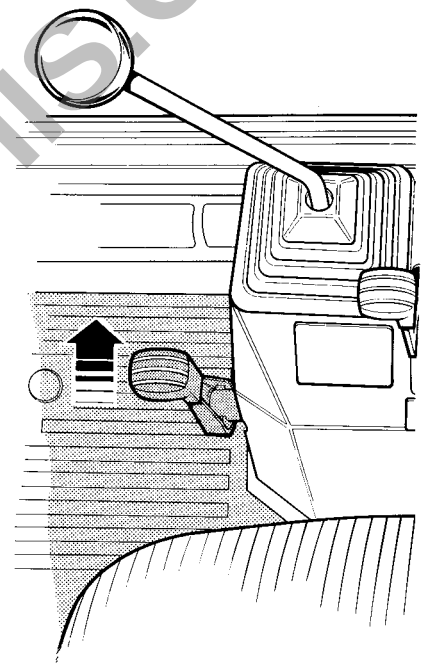
Release Clamps

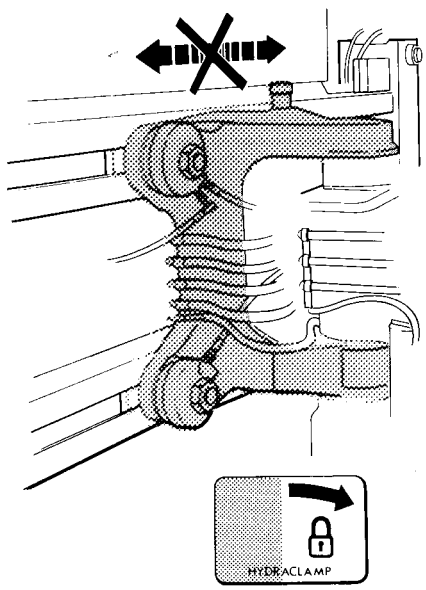
To release the clamps, push the lever towards the back of the machine.

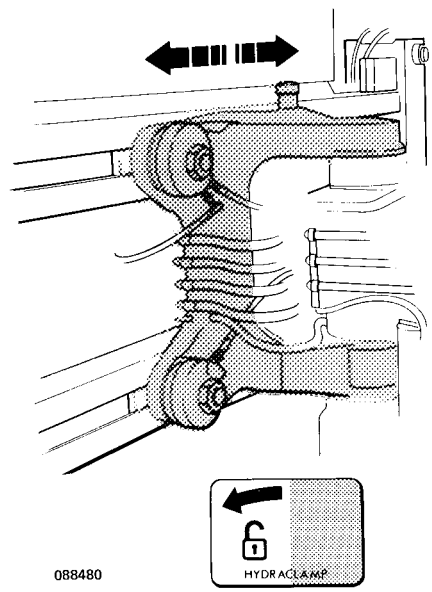


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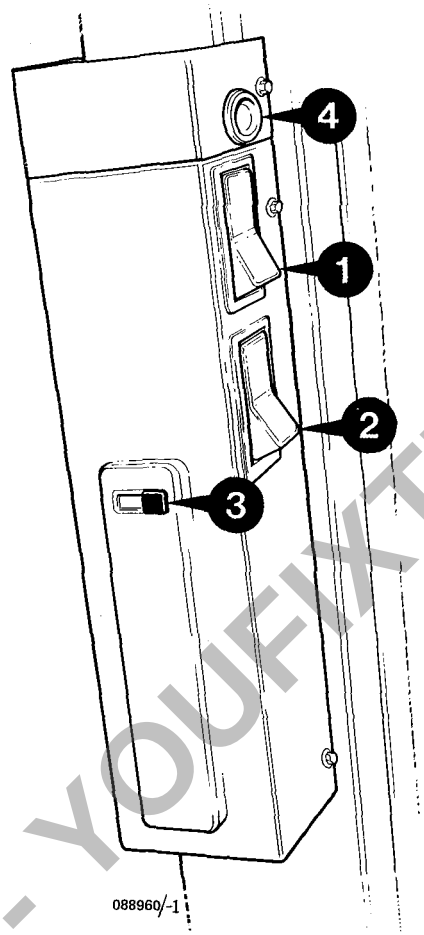
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ENGINE AND DRIVE CONTROLS, SWITCHES AND INSTRUMENTS
(continued)

Cab Pillar Switches



1 **Rear Work Lights** *(If fitted)*

Rocker switch. Press to switch on the rear work lights. The work lights will come on only after the side lights are switched on.

⚠ WARNING

Do not drive on the road with the work lights switched on. You can dazzle other drivers and cause an accident.
2-2-2-5

2 **Rear Window Wiper** *(If fitted)*

Rocker switch. Press to switch on the rear window wiper. Note that the wiper does not self-park. Functions only with the starter switch at **IGN.**

3 **Cab Light** *(If fitted)*

Sliding switch. Slide it towards the front of the machine to switch on the cab interior light.

4 **Beacon Socket** *(If Fitted)*

Plug the lead from the flashing beacon into the socket. The beacon will start flashing when the lead is plugged in (no 'ON/OFF' switch required).

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MODEL 1400B (SIDESHIFT)

Tapered Ditching Buckets

Taper Width Angle		Capacities Heaped		Weight		No of Teeth
in	mm	cu ft	m^3	lb	kg	
30 ° 15 to 66	381 to 1,676	2.3	.07	450	204	2
60 ° 12 to 42	308 to 1,067	4.0	.12	221	100	2

TIRES

Front

Type	Size	Ply Rating	Tread	Tire Code	Pressure PSI
2WD					
Standard	11L-16	10	Laborer	F3	52
Optional	11L-16	12	Laborer	F3	64
Optional	12.5L-16	12	Ribbed	R1	56
4WD					
Standard ++	14.0-17.5	6	Lug	SGL	35

Rear

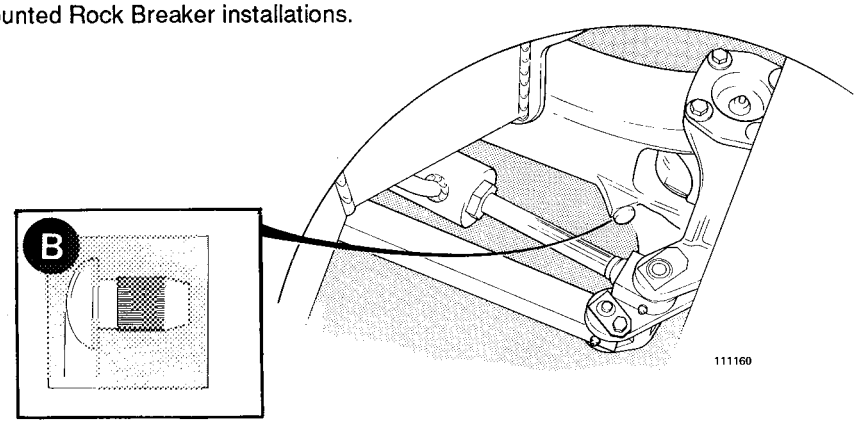
Type	Size	Ply Rating	Tread	Tire Code	Pressure PSI
2WD - Suitable for use with standard or extending dippers except when marked*					
Standard*	16.9-24	10	Industrial	R4	32
Optional +	19.5L-24	10	Industrial	R4	28
Optional**	19.5L-24	12	Industrial	R4	34
4WD - Suitable for use with standard or extending dippers					
Standard +	19.5L-24	10	Industrial	R4	28
Optional**	19.5L-24	12	Industrial	R4	34

\+ Do not use with Dipper-mounted Rock Breaker installation - see **

++ Steering lock restriction stops **B** must be fitted to both sides of the axle on 4 wheel drive machines fitted with these tires.

* Do not use with Extending dipper installations - use one of listed options

** Use with Dipper-mounted Rock Breaker installations.



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