

1650K
Crawler Dozer
Tier II Engine

Operator's Manual

Bur 6-38100GB



1650K

(Tier 2)

Crawler dozer

Operator's Manual

Print no. 6-38100



WARNING

STUDY THIS MANUAL BEFORE STARTING, OPERATING, MAINTAINING, FUELING OR SERVICING THE MACHINE.



This alert symbol signals important messages involving your safety. It means: WARNING! BE ALERT! IT INVOLVES YOUR SAFETY.

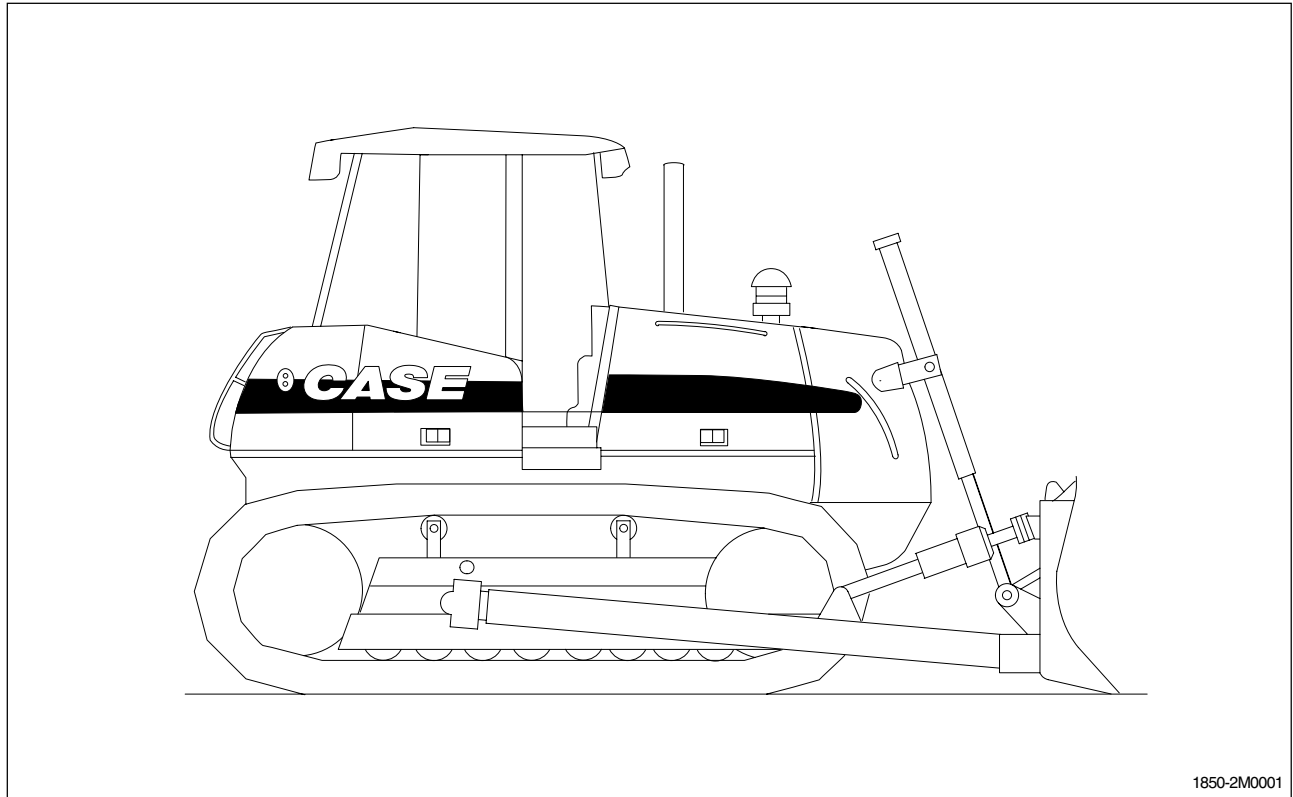


Read and heed carefully all safety instructions identified by the key words WARNING and DANGER.



The safety plates applied to this machine are color coded yellow with black edges and wording for the points to which ATTENTION must be paid and red colored with white edges and wording for DANGER points.

TO THE OWNER



K SERIES CRAWLER

This manual contains important information about the safe operation, adjustment and maintenance of your Case Crawler. Refer to the Detail Index at the end of this manual for locating specific items about your machine. The Crawler conforms to current safety regulations.

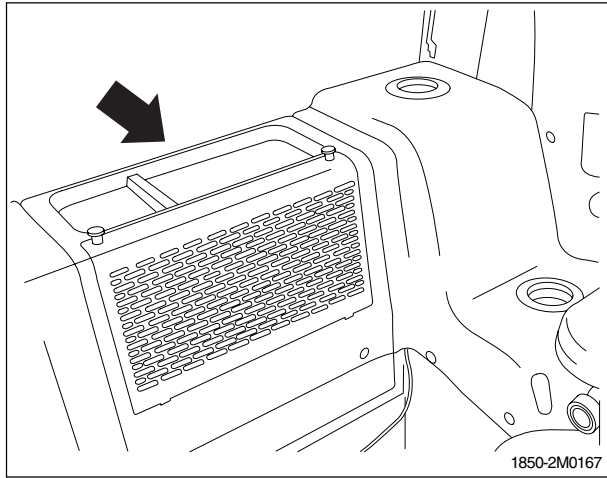
Use this manual as a guide. Your Crawler will remain a reliable working tool as long as it is kept in good working condition and serviced properly.

Do Not operate or permit anyone to operate or service this machine until you or the other persons have read and understand the safety, operation and maintenance instructions in this manual. Use only trained operators who have demonstrated the ability to operate and service this machine correctly and safely.

This Crawler, with standard equipment and authorized attachments, is intended to be used for above ground material handling.

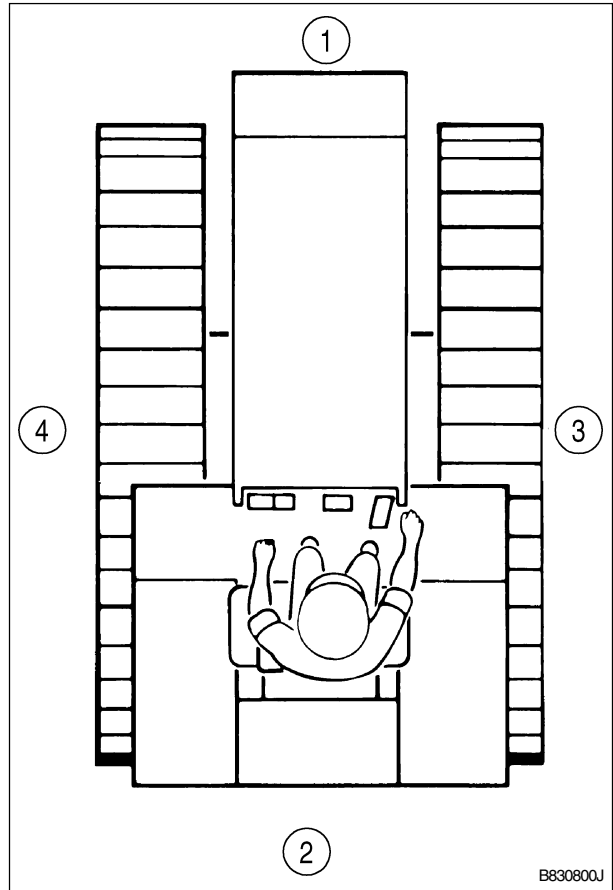
Do Not use this machine for any application or purpose other than those described in this manual. Consult an authorized dealer of the Case Corporation on changes, additions or modifications that can be required for this machine to comply with various country regulations and safety requirements. Unauthorized modifications will cause serious injury or death. Anyone making such unauthorized modifications is responsible for the consequences.

This Operators Manual is to be stored in the manual compartment equipped on this machine, Make sure this manual is complete and in good condition. Contact your dealer to obtain additional manuals. Contact your dealer for any further information or assistance about your machine. Your dealer has Case Corporation approved service parts. Your dealer has technicians with special training that know the best methods of repair and maintenance for your Crawler.



OPERATOR'S MANUAL SEAT

RIGHT, LEFT, FRONT, AND REAR OF THE MACHINE



1. FRONT
2. REAR

3. RIGHT-HAND SIDE
4. LEFT-HAND SIDE

BASIC MACHINE, DOZER AND RIPPER

The terms Right-hand, Left-hand, Front, and Rear are used in this manual to indicate the sides as they are seen from the operator's seat.

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SAFETY RULES

GENERALITIES

Carefully study this manual before starting, operating, maintaining, fuelling or servicing the machine.

Read and heed all safety rules before any intervention.

Do not allow unauthorised personnel to operate service or maintain this machine.

Do not operate the machine if not feeling well or fatigued.

Do not wear rings, wrist watches, jewellery, loose or hanging apparels, such as ties, torn clothing, scarves, unbuttoned or unzipped jackets that can catch on moving parts. Wear proper safety equipment as recommended for the job. Examples: hard hat, heavy gloves, ear protection, safety glasses or goggles, reflector vests, respirator. Consult your employer for specific safety equipment requirements.

Keep operator's compartment, stepping points, grab-rails and handles clear of foreign objects, oil, grease, mud or snow accumulation to minimise the danger of slipping or stumbling. Clean mud or grease from shoes before attempting to mount or operate the machine.

Do not jump on or off the machine. Keep two hands and one foot, or two feet and one hand in contact with step grab rails and handles at all times.

Do not use controls or hoses as hand holds when climbing on or off machine. Hoses and controls are movable and do not provide a solid support. Also, controls may be inadvertently moved causing accidental machine or equipment movement.

Never attempt to operate the machine or its tools from any position other than seated in the operator's seat.

Keep head, body, limbs, hands and feet inside operator's compartment at all times, to reduce exposure to hazards outside the operator's compartment.

Be careful of slippery conditions on stepping points, hand rails, and on the ground. Wear safety boots or shoes that have a high slip resistant sole material.

Do not leave the machine until it is completely stopped.

Check the seat safety belt at least twice a year. If there are signs of wear or fraying or other signs of weakness that could lead to failure, replace it.

STARTING

NEVER STARTING NOR OPERATE AN UNSAFE MACHINE. Before operating a machine, always ensure that any unsafe condition has been repaired.

Check brakes, steering and attachment controls before moving. Advise the proper maintenance authority of any malfunctioning part or system.

Be sure all protective guards or panels are in place, and all safety devices provided are in place and in good operating conditions.

Be sure exposed personnel in the area of operation are clear of the machine before moving it or its attachments. **WALK COMPLETELY AROUND** the machine before mounting. Sound horn.

Before starting machine, check, adjust and lock the operator's seat for maximum comfort and control of the machine.

Fasten your seat belt.

Obey all flag signals and signs.

Due to the presence of flammable fluids on the machine, never check or fill fuel reservoirs or batteries near open flames, smoking materials or sparks.

REMEMBER THAT STARTING FLUID IS FLAMMABLE. Strictly follow the recommendations printed on containers and in the Operation and Maintenance Manual.

DO NOT PUNCTURE OR BURN CONTAINERS.

Containers must be stored in fresh, well ventilated places, out of reach of unauthorized persons. Strictly follow the instructions provided by the Manufacturer.

Never use these products near open flames, smoking materials or sparks

OPERATION

Do not run the engine in closed areas without proper ventilation to remove deadly exhaust gases.

Roll Over Protective Structures are required on loaders, dozers, graders, excavators. **NEVER OPERATE** machines without ROPS.

Make sure the Operator's compartment is free of foreign objects, especially if not firmly secured. Never use the machine to transport objects, unless proper securing points are provided.

Check monitoring instruments at start-up and frequently during operations. To the brake pressure gauge shows a pressure lower than the minimum operating pressure, stop the machine immediately.

DO NOT CARRY RIDERS ON MACHINE.

Study and familiarize yourself with escape routes alternate to normal exit routes.

Seat belts are required by current regulations to be provided with Roll Over Protection Structures or cabs. Keep safety belts fastened around you during operation.

For your personal protection, do not climb on or off machine while machine is in motion.

Make sure that exposed persons in the area of operation are clear of the machine, before starting the engine and operating the equipment. Sound horn. Obey all indications provided by flags and signals.

SAFETY RULES

NEVER COAST the machine down grades and slopes with the transmission in neutral or neutralized.

Choose and shift into the most appropriate gear to keep the speed required, thus preventing any loss of control.

Do not operate machinery in a condition of extreme fatigue or illness. Be especially careful towards the end of working shift.

Do not operate machine with brakes out of adjustment.

Operate the machine at speeds slow enough to ensure complete control at all times.

Travel slowly over rough terrain, on slopes or near drop-offs, in congested areas or on ice or slippery surfaces.

When backing, always look to where the machine is to be moved. Be alert to the position of exposed personnel. DO NOT OPERATE if exposed personnel enter the immediate work area. STOP THE MACHINE.

Maintain a safe distance from other machines. Provide sufficient clearance for ground and visibility conditions. Yield right-of-way to loaded machines.

Maintain clear vision of areas of travel or work. Keep cab windows clean and repaired.

When pulling or towing through a cable or chain, do not suddenly start at full throttle; take-up slack carefully.

Carefully inspect for flaws or troubles before using.

Avoid kinking chains or cables. Do not pull through a kinked chain or cable to the high stresses and possibility of failure of the kinked area. Always wear heavy gloves when handling chains or cables.

Be sure chains and cables are anchored and the anchor points are strong enough to handle the expected load. Keep exposed personnel clear of anchor points and cables or chains.

DO NOT PULL UNLESS OPERATOR'S COMPARTMENT OF MACHINES INVOLVED ARE PROPERLY GUARDED AGAINST POTENTIAL CABLE OR CHAIN BACKLASH.

Be alert to soft ground conditions close to newly constructed walls. The fill material and weight of the machine may cause the wall to collapse under the machine.

In darkness, check area of operation carefully before moving in with machine. Use all lights provided. Do not move into area of restricted visibility.

If engine has a tendency to stall for any reason under load or idle, report this for adjustment to proper maintenance authority immediately. Do not continue to operate machine, until condition has been corrected.

On machines supplied with suction radiator fans, be sure to periodically check engine exhaust parts for leaks, as exhaust fumes are dangerous to the operator.

In case of closed type cabs, always keep an opening with the outside, to ensure a constant air circulation.

Operators must thoroughly know the performances of the machine they are operating. When working on slopes or near sudden level drops of the terrain, avoid areas where ground is loose or soft since rolling-over or loss of control of machine could result.

Where noise exposure exceeds 90 dBA for 8 hours, wear approved ear protection.

When counterweights are provided, do not work machine if they have been removed.

Overtaking maneuver must be performed only when absolutely necessary and unavoidable. Beware of possible uneven terrains, poor visibility conditions, the presence of other machinery or persons out of sight.

Operate the machine at a speed adequate to the working conditions in the site and slow enough to ensure complete control at all times.

Never use the machine as a work platform or scaffolding, nor other inappropriate operations (i.e. pushing railway cars, trucks or other machines).

Be alert of people in the operating area of the machine.

When operating a machine, know in advance what clearances will be encountered, overhead doors, cables, pipes, bearing load limitations of ground, bridges, floors or ramps.

When roading, find-out what conditions are likely to be encountered, clearances, traffic congestion, type of road surfacing, etc. Beware of fog, smoke or dust elements that obscure visibility.

When crossing gullies or ditches, move at an angle with reduced speed after ensuring ground conditions will permit a safe traverse.

Explore the working area to identify potential risks such as: slopes, overhangs, pits, demolition rubble, fires, ravines, ditches, soft terrain, heavy traffic, crowded parking areas, closed ambients. In such conditions, proceed with extreme care.

Whenever possible, avoid going over obstacles such as rough terrain, rocks, logs highly irregular ground, steps, ditches, railroad tracks. When obstructions must be crossed, do so with extreme care at an angle, if possible. Reduce speed, shift-down. Ease up to the break over point, pass the balance point slowly on the obstruction and ease down on the other side.

In steep down-hill operation, do not allow engine to over-speed. Select proper gear before starting down grade.

Avoid side hill travel, whenever possible. Drive up and down the slope. Should the machine slipping sideways, turn it immediately downhill.

The grade of slope you should attempt will be limited by factors such as condition of the ground, load being handled, type of machine, speed of machine and visibility.

SAFETY RULES

There is no substitute for good judgement when working on slopes.

Avoid operating equipment too close to an overhang or high wall, either above or below the machine. Be on the look-out for caving edges, falling objects and slides. Beware of concealment by brush and undergrowth of these danger.

When pushing-over trees, the machine must be equipped with proper overhead guarding. Never allow a machine to climb up on the root structure particularly while the tree is being felled. Use extreme care when pushing over any tree with dead branches.

When pushing trees with dead limbs, proceed with extreme care. Avoid brush piles, logs or rocks.

NEVER DRIVE OVER THEM or other surface irregularities that brake traction with the ground, especially when on slopes or near drop-offs.

Be alert to avoid changes in traction conditions that could cause loss of control. DO NOT DRIVE on ice or frozen ground conditions when working the machine on steep slopes or near drop-offs.

Working in virgin and rough terrains is characterised by the presence of all the perils and risks listed above. In these conditions, it is emphasised the danger represented by large tree limbs (possibly falling on the machine), large roots (acting as a leverage under the machine when up-rooted causing roll-over of the unit) etc...

STOPPING

When the machine is stopped for whatever reason, follow the instructions of chapters "Stopping the machine" and "Stopping the engine" of the Operation and Maintenance Instruction Manual.

Always remember to position the transmission drive control in neutral and engage the control lock to secure the machine.

The parking brake is automatically set.

NEVER LEAVE THE MACHINE UNATTENDED with the engine running.

Always, before leaving the operator's seat and after making sure all people are clear of the machine, slowly lower the attachments or tools flat to the ground in a positive ground support position.

Return the controls to rest position. Place the gearshift lever in neutral. Switch start switch to off and extract the key.

See the relevant chapter in this Manual.

Park in a non-operating and no-traffic area or as instructed. Park on firm level ground if possible. Where not possible, position machine at a right angle to the slope, making sure there is no danger of uncontrolled sliding movements.

If parking in traffic lanes cannot be avoided, provide appropriate flags, barriers, flares and signals as required. Also provide advance warning signals in the traffic lane of approaching traffic.

Keep head, body, limbs, feet, fingers or hands away from bucket, blade or ripper when in raised position.

Always disconnect the master switch before any intervention (i.e. cleaning, repairing, maintaining, refuelling etc.). Do the same when parking for prolonged periods of time to avoid accidental or unauthorised starting.

Never lower attachments or tools other than seated in operator's seat. Sound horn. Make sure area near the attachment is clear. Lower the attachment slowly. DO NOT USE FLOAT POSITION of hydraulic system.

Place master switch in OFF, securely block the machine and lock it every time you leave it unattended. Return keys to authorised security. Heed all shut-down operations of the Operation and Maintenance Instruction Manual are followed.

MAINTENANCE

GENERALITIES

Before operating or performing any intervention on the machine:

- read carefully all the rules contained by this Manual,
- read and obey all safety related plates and instructions located on the machine.

Do not allow unauthorised personnel to perform any maintenance operation. Do not perform maintenance operation without prior authorisation. Follow all recommended maintenance and service procedures.

Keep operator's compartment free of all loose objects.

Do not wear rings, wrist watches, jewellery, loose or hanging apparels, such as ties, torn clothing, scarves, unbuttoned or unzipped jackets that can catch on moving parts. Wear proper safety equipment as recommended for the job. Examples: hard hat, heavy gloves, ear protection, safety glasses or goggles, reflector vests, respirator. Consult your employer for specific safety equipment requirements.

Do not use controls or hoses as hand holds when climbing on or off machine. Hoses and controls are movable and do not provide a solid support. Also, controls may be inadvertently moved causing accidental machine or equipment movement.

Do not jump on or off the machine. Keep two hands and one foot, or two feet and one hand in contact with step grab rails and handles at all times.

Do not perform any service operation on the machine with a person seated in the operator's compartment, unless he is an authorised operator co-operating in the operation to be performed.