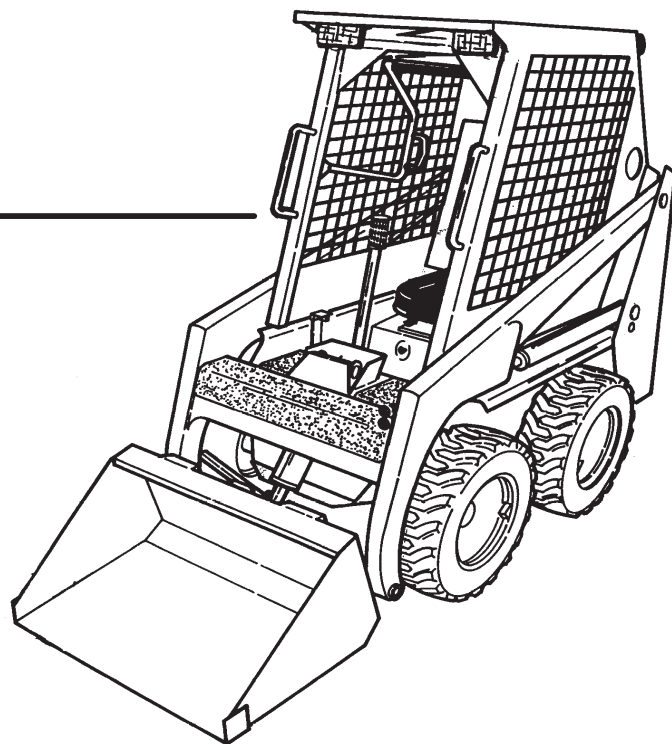


450



Operation & Maintenance Manual



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**EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICSTM)**

**MELROE
INGERSOLL-RAND**

6724207 (9-98) Revised (5-12)

Printed in U.S.A.



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OPTIONS AND ACCESSORIES

Model 450 Bobcat loaders are equipped with the following standard items:

- Spark Arrestor Muffler
- Lift Arm Support Device
- Operator Cab (with ROPS & FOPS Approval)
- Bobcat Interlock Control System (BICS™)
- Hourmeter, Fuel Gauge (on tank)
- Seat Belt
- Seat Bar
- Parking Brake
- Black Cushion Seat
- 5.70-12, 4 Ply Rating Tires (Machine Width – 36 inches)

Below is a list of some equipment available as a Factory Installed Option or as a Field Installed Accessory from your Bobcat loader dealer. See your Bobcat dealer for other available accessories and attachments.

Tires

- 23 x 8.5 – 12, 4 Ply Rating Flotation Tires
(Machine Width – 44 inches) Opt. & FA
- 23 x 8.5 – 12, 6 Ply Rating Bobcat Heavy Duty
(Machine Width – 44 inches) Opt. & FA

Operator Cab

- Sound Cab (Reduces noise at
Operator's Ear) Opt.
- Operating Lights (Front & Rear) Opt. & FA
- Back-up Alarm Opt. & FA
- Top Window FA
- Rear Window FA
- Side Windows FA
- Vinyl Cab Enclosure FA
- Fire Extinguisher FA
- Strobe Light FA
- 3 inch Seat Belt FA
- Suspension Seat FA
- Special Applications Kit* FA

*Includes 1/2 inch Lexan Door,
1/4 inch Lexan Top and Rear Windows

Opt. = Factory Installed Option
FA = Field Accessory

Hydraulics

- Front Auxiliary Hydraulics Opt. & FA

Other

- Bob-Tach Opt. & FA
- Single Point Lift FA
- Locking Fuel Cap FA

***Specifications subject to
change without notice***

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**OPERATING
INSTRUCTIONS**

DAILY INSPECTION

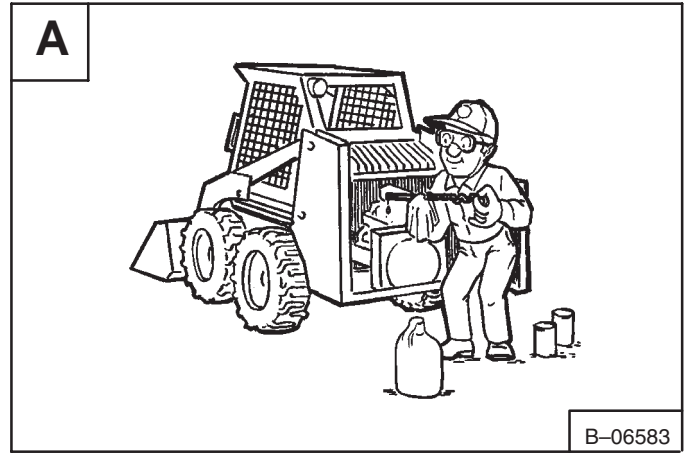
The loader must be in good operating condition [A].

Check the following items before starting each day:

- Engine Oil
- Hydraulic/Hydrostatic Fluid
- Air Cleaner Condition Indicator
- Engine Cooling System
- Operator Cab, Seat Belt, Seat Bar & Pedal Interlocks
- Lift Arms & Cylinder Pivot Pins
- Tires & Tire Pressure
- Any Loose or Broken Parts
- Check Fuel Level
- Safety Tread & Safety Signs
- Bobcat Interlock Control System (BICS™)

Follow the maintenance requirements on the Service Schedule Decal, located inside the rear door [B].

NOTE: Fluids such as engine oil, hydraulic fluid, coolants, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for correct disposal.



B-06583

! WARNING

Instructions are necessary before operating or servicing machine. Read Operation & Maintenance Manual, Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Failure to follow instructions can cause injury or death [A].

W-2003-0797

B

SERVICE SCHEDULE

EVERY 10 HOURS (BEFORE STARTING THE LOADER)

1. Engine Oil — Check level — do not overfill. (See Operation & Maintenance Manual for recommended oil).
2. Engine Air Filter — Check gauge and/or display. Service only when required.
3. Engine Cooling System — Clean debris from oil cooler, radiator and grill. Check coolant level cold, add 50% propylene glycol premixed with 47% water as needed.
4. Loader Lift Arm, cylinders, Bob-Tach pivot and wedges, lubricate with multi-purpose lithium base grease.
5. Engine Air System — Check for leaks and damaged components.
6. General — Check for loose or broken parts, damaged operator cab, instrument operations, loose wheel nuts, oil leaks. Repair or replace as needed.
7. Seat Belt/Seat Bar and Control Interlocks — Check function. Repair or replace as needed. Clean dirt and debris from moving parts.
8. Fuel Filter — Remove trapped water (diesel engine only).
9. BICS — Check for function. Clean dirt, debris or objects from under and back of seat as required.
10. Tires — Check inflation pressure. Inflate tires to the MAXIMUM pressure shown on the sidewall of the tire.

EVERY 50 HOURS

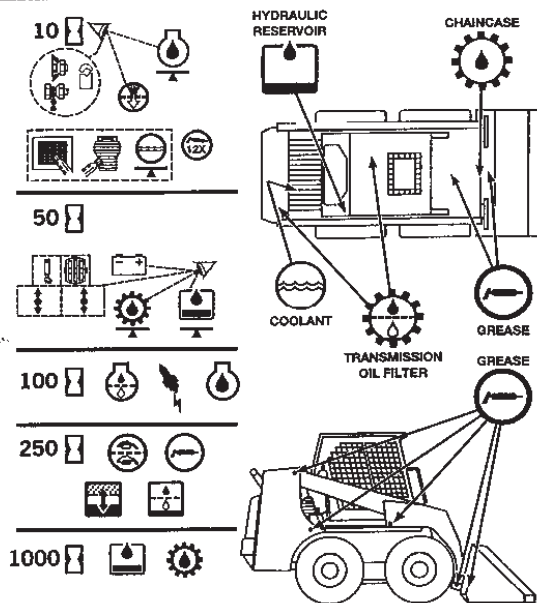
1. Hydraulic Fluid — Check the fluid level. See your Operation & Maintenance Manual for recommended fluid.
2. Chaincase — Check the fluid level. See your Operation & Maintenance Manual for recommended fluid.
3. Battery — Check condition.
4. Controls — Check operation, adjust if needed.
5. Engine Oil (450 Loader Only) — Drain when engine is at operating temperature. See Operation & Maintenance Manual.

EVERY 100 HOURS

1. Spark Arrestor Muffler — Empty spark chamber.
2. Ignition System — If using leaded fuel, check spark plugs and ignition system. If using unleaded fuel, service only as required to maintain good starting and smooth operation (Gas Engine Only).
3. Engine Oil — Drain when engine is at operating temperature and replace filter. See Operation & Maintenance Manual. (Every 250 hours for 700 models with a KUBOTA engine.)
4. Check all belt drives — Water pump and alternator and fan drive for condition and tension. Adjust or replace as needed.
5. Hydraulic/Hydrostatic System (400's and 500's only) — Replace the filter element. NOTE: The filter element must be replaced sooner if transmission warning indicator remains on for more than 5 minutes after hydraulic fluid is at operating temperature.

EVERY 250 HOURS (OR EVERY 12 MONTHS)

1. Final Fuel Filter — Replace filter element.
2. Steering Lever Pivots — Lubricate with multi-purpose lithium based grease (2 places).
3. *Transmission Drive Belt — Check and adjust if needed.
*Check replacement drive belt after the first 50 hours of operation and adjust if needed.
4. Drive Line (500's only) — Lubricate U-joint. See Operation & Maintenance Manual for recommended grease.
5. Hydraulic/Hydrostatic System — Replace reservoir breather cap and replace the filter element (853-Replace two (2) filter elements). NOTE: The filter element must be replaced sooner if transmission warning indicator remains on for more than 5 minutes after hydraulic fluid is at operating temperature.



EVERY 1000 HOURS (OR EVERY 12 MONTHS)

1. Hydraulic Reservoir — Replace fluid. See Operation & Maintenance Manual for recommended fluid.
2. Drive Motor Case Drain Filters — Clean or Replace if equipped.
3. Chaincase — Drain fluid and replace. See your Operation & Maintenance Manual for recommended fluid.
4. Fan Drive Gearbox — Check fluid level. See your Operation & Maintenance Manual for recommended fluid.
5. BICS — Check lift arm bypass control.

See the Operation & Maintenance Manual for more instructions.
Weitere Anweisungen finden sie in der Bedienungs- und Instandhaltungsanleitung.
Para más instrucciones, vea el Manual de Operación y Mantenimiento.
Voir le Manuel de l'opérateur et d'entretien pour d'autres renseignements.

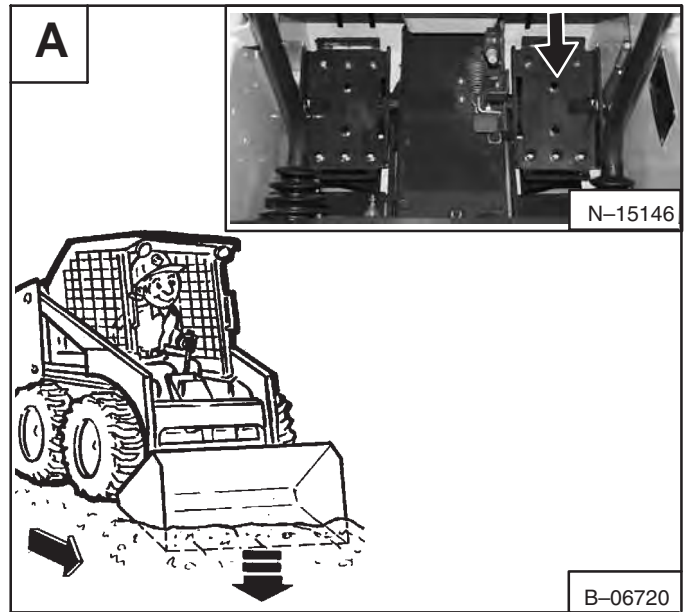
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OPERATING PROCEDURES (Cont'd)

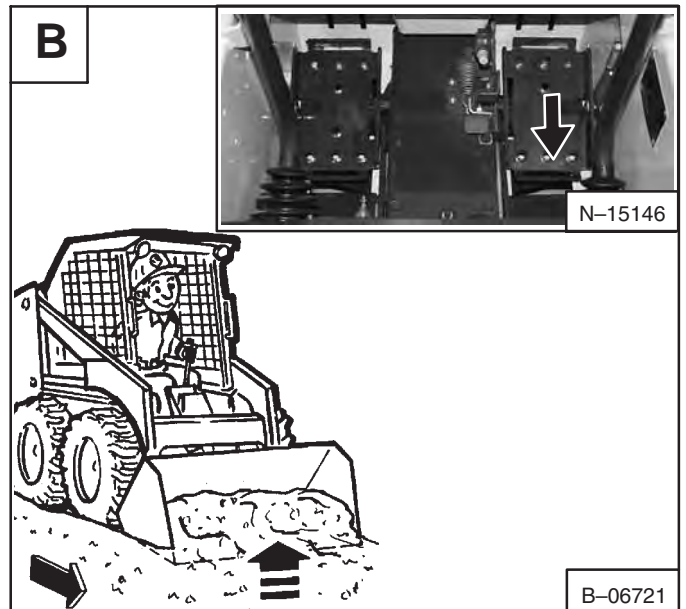
Digging Into The Ground

Put the lift arms all the way down. Push the top of the tilt pedal until the cutting edge of the bucket is on the ground. Drive forward slowly and continue to tilt the bucket down until it enters the ground [A].

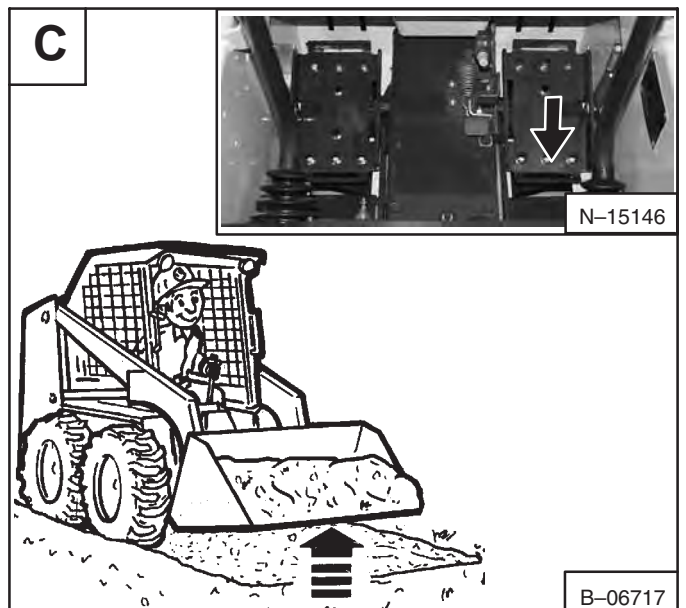


Push the bottom of the tilt pedal a small amount to increase traction and keep an even digging depth [B].

Continue to drive forward until the bucket is full. When the ground is hard, raise and lower the cutting edge of the bucket with the tilt pedal while driving forward slowly.



Push the bottom of the tilt pedal to tilt the bucket backward as far as it will go when the bucket is full [C].



OPERATOR CAB (Cont'd)

Lowering The Operator Cab

Hold the operator cab. Release the locking mechanism by pushing the lever (Item 1) [A] inward from the locked position (Item 2) [A] and turning the lever until it stays in the unlocked position [B].



WARNING

The cab must be held to prevent falling while hand is in access hole.

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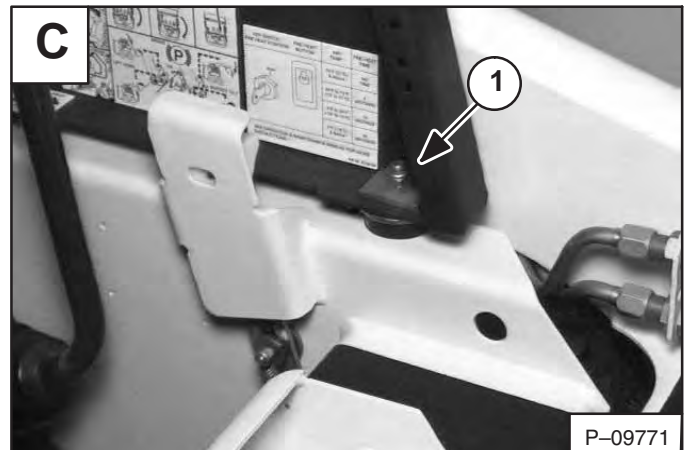
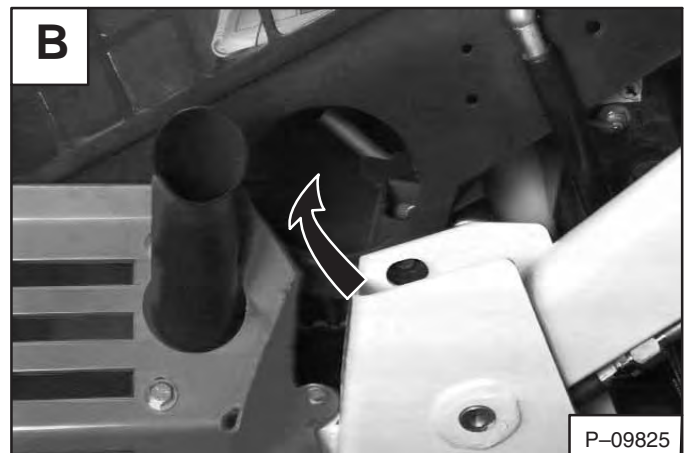
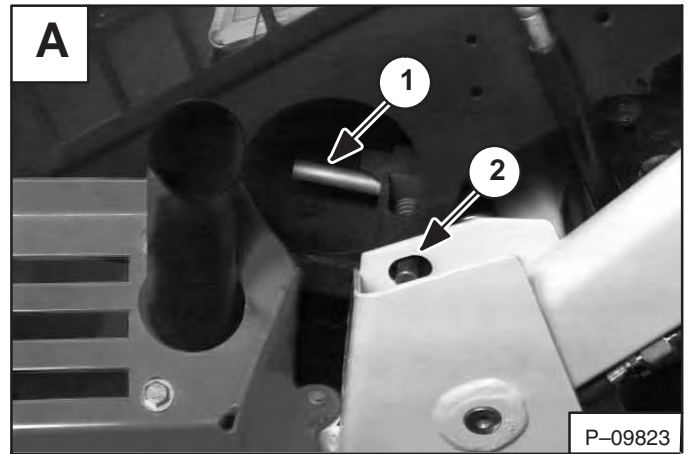
REMOVE YOUR HAND BEFORE LOWERING THE OPERATOR CAB

Stand on the ground and pull down on the operator cab.

Avoid slippery surfaces when lowering the cab.

NOTE: Guide the operator cab over the fastening bolts to prevent thread damage.

Install the cab washers and nuts. Tighten the nuts (Item 1) [C] (both sides) to 40–50 ft.-lbs. (54–68 Nm) torque.



ELECTRICAL SYSTEM (Cont'd)

Using An Extra Battery (Jump Starting) (Cont'd)

The key switch must be in the OFF POSITION.

The extra battery must be the same voltage as the loader battery.

Connect the end of the first jumper cable to the positive (+) terminal of the booster battery. Connect the other end of the same cable to the positive terminal (+) of the loader battery **[A]**.

Connect the end of the second jumper cable to the negative (-) terminal of the booster battery. Connect the other end of the second cable to the engine ground cable on the engine **[A]**.

Keep the cables away from moving parts.

Start the engine.

After engine has started, remove the cable connected to the engine ground cable first.

Remove the cable connected to the positive (+) terminal of the loader battery.

IMPORTANT

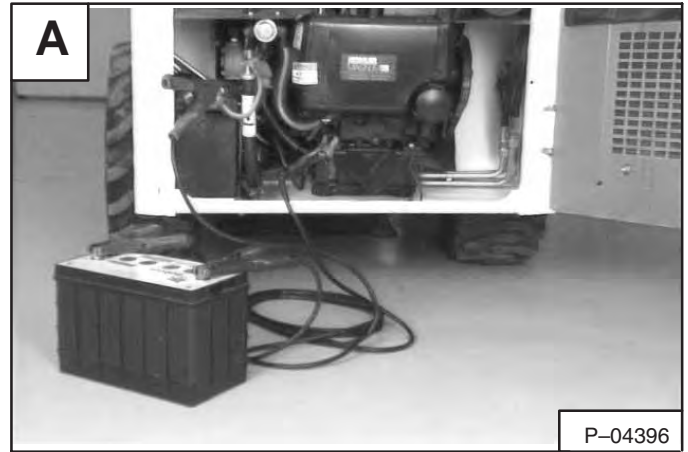
Damage to alternator can occur if:

- Engine is operated with battery cables disconnected.
- Battery cables are connected when using a fast charger or when welding on the loader (Remove both cables from the battery).
- Extra battery cables (booster cables) are connected wrong.

I-2023-1285

Fuse Location

The fuses are located on the inside of the left upright.



WARNING

Batteries contain acid which burns eyes and skin on contact. Wear goggles, protective clothing and rubber gloves to keep acid off body.

In case of acid contact, wash immediately with water. In case of eye contact get prompt medical attention and wash eye with clean, cool water for at least 15 minutes.

If electrolyte is taken internally drink large quantities of water or milk! DO NOT induce vomiting. Get prompt medical attention.

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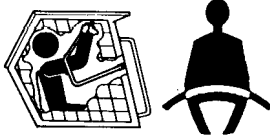
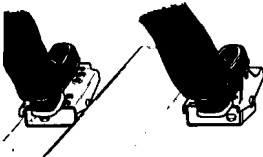

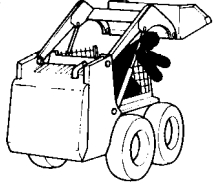
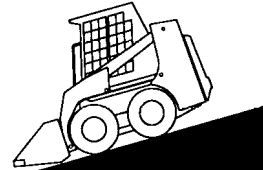




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**SYSTEMS
ANALYSIS**

⚠ WARNING

AVOID INJURY OR DEATH

 <p>NEVER USE THE LOADER WITHOUT INSTRUCTIONS. READ OPERATION AND MAINTENANCE MANUAL AND HANDBOOK.</p>	 <p>USE SEAT BAR. FASTEN SEAT BELT SECURELY.</p>	 <p>KEEP FEET ON PEDALS.</p>	TO LEAVE THE LOADER:	
 <p>DO NOT TRAVEL OR TURN WITH LIFT ARMS UP. LOAD, UNLOAD AND TURN ON FLAT LEVEL GROUND. DO NOT EXCEED RATED OPERATING CAPACITY (SEE SIGN ON LOADER).</p>	 <p>NEVER MODIFY EQUIPMENT OR USE ATTACHMENTS NOT APPROVED BY MELROE COMPANY.</p>	 <p>ON SLOPES, KEEP HEAVY END OF LOADER UPHILL.</p>	<p>1  LOWER THE LIFT ARMS PUT ATTACHMENT FLAT ON GROUND.</p>	<p>2  STOP STOP THE ENGINE</p>
<p>WELTERE ANWEISUNGEN FINDEN SIE IN DER BEDIENUNGS- UND INSTANDHALTUNGSANLEITUNG. Para más instrucciones, vea el Manual de Operación y Mantenimiento. Voir le Manuel de l'opérateur et d'entretien pour d'autres renseignements.</p>			<p>3  ENGAGE THE BRAKE.</p>	<p>4  RAISE SEAT BAR. MOVE PEDALS UNTIL BOTH LOCK.</p>
<p>6579510</p>				

ADVERTENCIA (SPANISH)

EVITE HERIDAS O LA MUERTE

NO USE NUNCA EL CARGADOR SIN LEER LAS INSTRUCCIONES.
LEA EL MANUAL DEL OPERADOR, EL MANUAL DE SERVICIO Y LA GUÍA DEL OPERARIO.

NO VIAJE O DE LA VUELTA CON LOS BRAZOS DE ELEVACION ARRIBA.
CARGUE, DESCARGUE Y DE LA VUELTA ESTANDO EN UN SITIO PLANO Y NIVELADO.
NO EXCEDA LA CAPACIDAD NOMINAL DE FUNCIONAMIENTO (VEA EL AVISO EN EL CARGADOR).

USE LA BARRA DEL ASIENTO.
ASEGURESE BIEN EL CINTURON DE SEGURIDAD.

NUNCA MODIFIQUE EL EQUIPO NI USE ADITAMENTOS QUE NO ESTEN APROBADOS POR LA COMPAÑIA MELROE.

MANTENGA LOS PIES EN LOS PEDALES.

EN LAS PENDIENTES, MANTENGA EL EXTREMO PESADO DE CARGADOR EN POSICION ASCENDENTE.

ANTES DE BAJARSE DEL CARGADOR

1. BAJE LOS BRAZOS DE ELEVACION.
COLOQUE EL ADITAMENTO BIEN EN EL SUELO.
2. PARE EL MOTOR.
3. PONGA EL FRENO.
4. LEVANTE LA BARRA DEL ASIENTO.
MUEVA LOS PEDALES HASTA QUE AMBOS SE TRABEN.

ATTENTION (FRENCH)

EVITER LES BLESSURES OU LA MORT

NE JAMAIS SE SERVIR DE LA CHARGEUSE SANS INSTRUCTIONS.
LIRE LE MANUEL DE L'OPERATEUR ET D'ENTRETIEN AINSI QUE LE GUIDE D'UTILISATION.

NE PAS SE DEPLACER NI VIRER AVEC LE BRAS RELEVES.
CHARGER, DECHARGER ET VIRER SUR UN SOL PLAT ET HORIZONTAL.
NE PAS DEPASSER LE CAPACITE NOMINALE (CONSULTER L'AUTOCOLLANT APPOSE SUR LA CHARGEUSE).

UTILISER L'ARCEAU DE SECURITE.
ATTACHER SOIGNEUSEMENT LA CEINTURE DE SECURITE.

NE JAMAIS MODIFIER L'EQUIPEMENT NI SE SERVIR D'ACCESSOIRES QUE NE SONT PAS APPROUVES PAR MELROE COMPANY.

MANTENIR LES PIEDS SUR LES PEDALES.

DANS LES PENTES, TOUJOURS MAINTENIR LA PARTIE LA PLUS LOURDE DE LA CHARGEUSE VERS LE HAUT.

POUR QUITTER LA CHARGEUSE:

1. ABAISSER LES BRAS DE LEVAGE.
POSER L'EQUIPEMENT A PLATE SUR LE SOL.
2. ARRETER LE MOTEUR.
3. ENCLENCHER LE FREIN DE STATIONNEMENT.
4. RELEVER L'ARCEAU DE SECURITE.
DEPLACER LES PEDALES JUSQU'A CE QU'ELLES SOIENT TOUTES DEUX VERROILLEES.

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