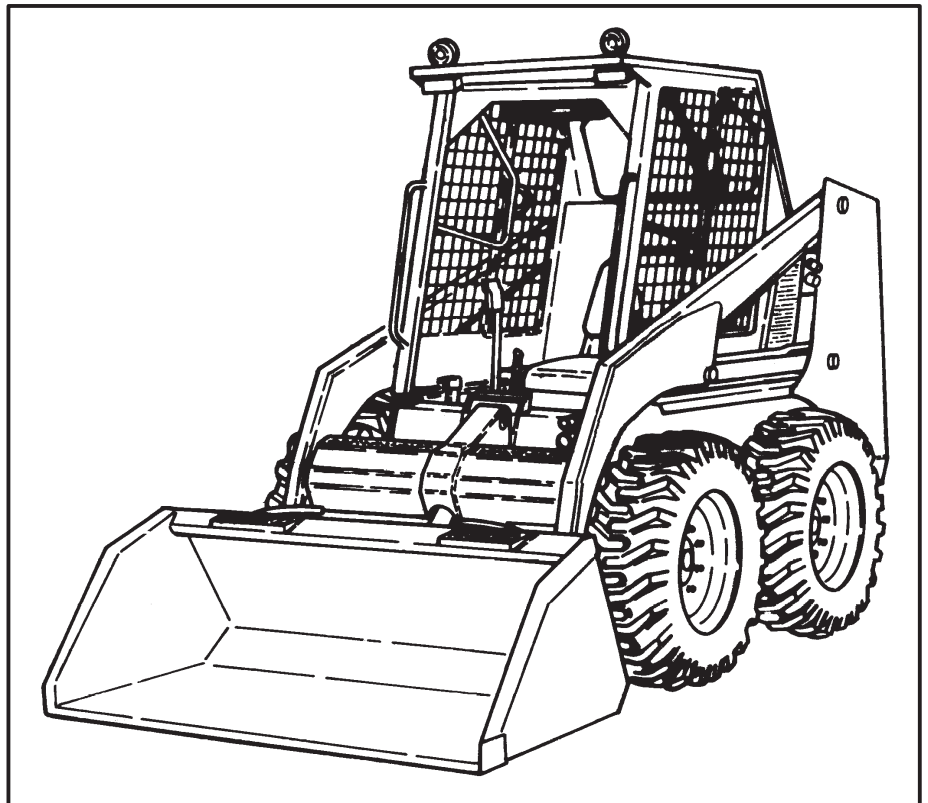


# Operation & Maintenance Manual

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**753 Base S/N 511350883 & Above**  
**753 Plus S/N 511525541 & Above**  
**753H Plus S/N 511011007 & Above**

**BASE  
PLUS  
HIGH  
HORSEPOWER**



**MELROE  
INGERSOLL-RAND**

6722761 (11-98) Revised (6-12)

Printed in U.S.A.



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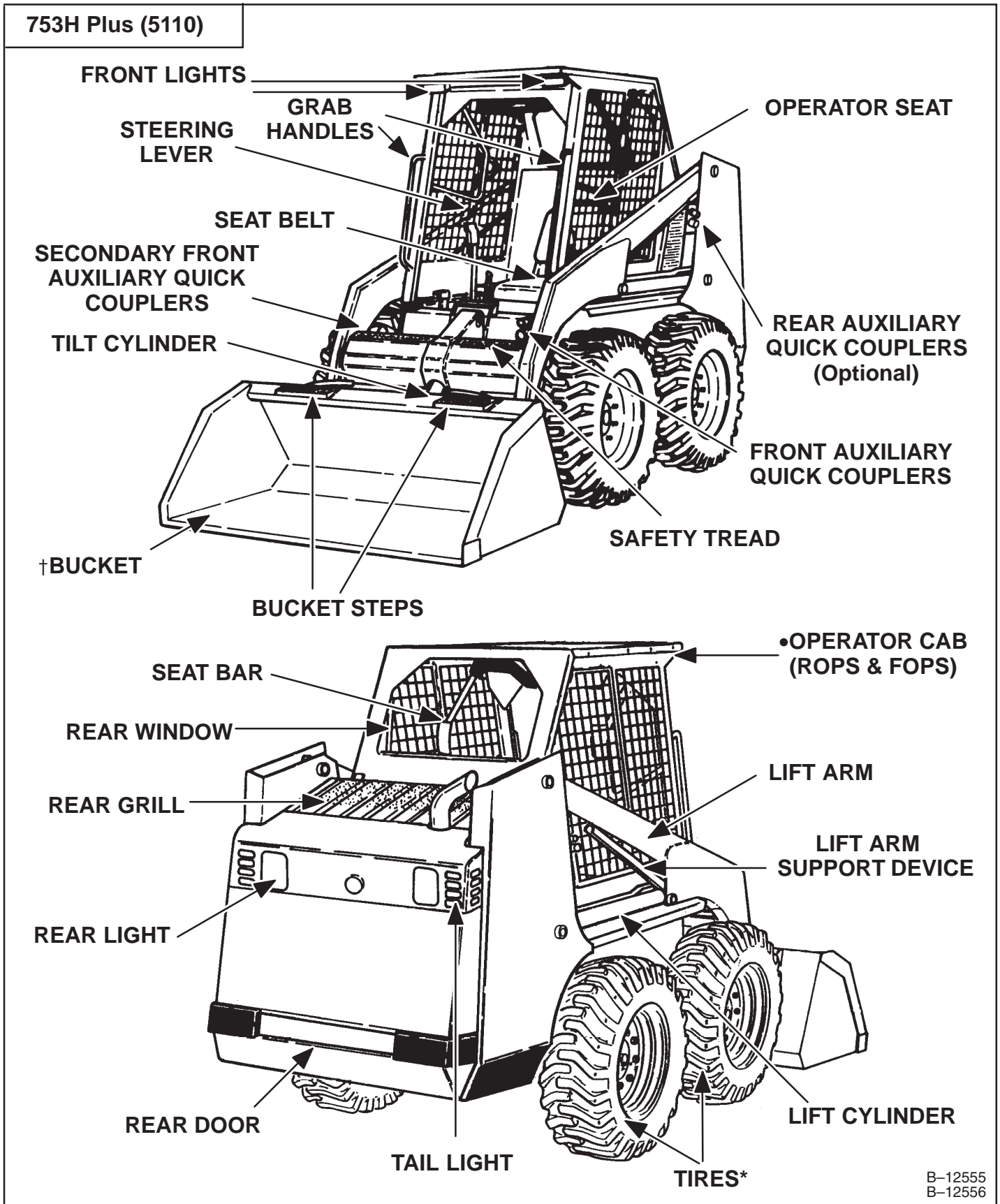
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# BOBCAT LOADER IDENTIFICATION (Cont'd)



B-12555  
B-12556

- \* TIRES – Flotation tires are shown. The Bobcat loader is base-equipped with standard tires.
- † BUCKET – Several different buckets and other attachments are available for the Bobcat loader.
- ROPS, FOPS – Roll-Over Protective Structure, Falling Object Protective Structure, per SAE J1040 and SAE J1043. The Bobcat loader is base-equipped with a standard operator cab as shown.

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## OPERATING INSTRUCTIONS

## DAILY INSPECTION

The loader must be in good operating condition [A].  
Check the following items:

- Engine Oil
- Hydraulic/Hydrostatic Fluid
- Engine Cooling System
- Operator Cab, Seat Belt, Seat Bar & Pedal Interlocks
- Lift Arm & Cylinder Pivot Pins
- Tires & Tire Pressure
- Any Loose or Broken Parts
- Safety Tread & Safety Signs
- Check the instrument panel display readout for faulty codes. (See Page 63.)

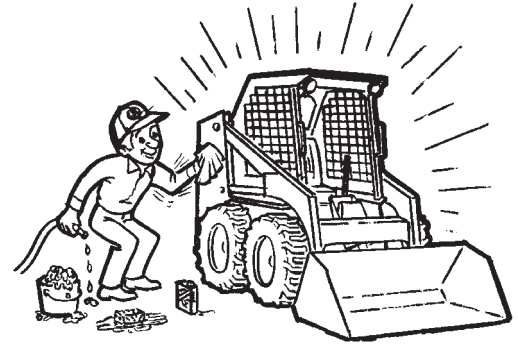
Follow the maintenance requirements on the Service Schedule Decal, located inside the rear door [B].

# ⚠ WARNING

Instructions are necessary before operating or servicing machine. Read Operation & Maintenance Manuals, 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-2003-1289

A



B-06583  
B-06592

B

## SERVICE SCHEDULE

### EVERY 10 HOURS

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 grills. Check coolant level cold, add 50–50 ethylene glycol–water as needed.
4. Loader Lift Arm, cylinders, Bob-Tech pivot and wedges, lubricate with multi-purpose lithium base grease (12 places).
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.
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).

### 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 and Brakes – Check operation, adjust if needed.
5. Tires – Check inflation pressure. FLOTATION - 35 PSI (241 kPa), STANDARD and 8 Ply Rating - 50 PSI (340 kPa).

### EVERY 100 HOURS

1. Spark Arrestor Muffler – Empty spark chamber.
2. Ignition System – If using loaded 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 hot and change filter. See Operation & Maintenance Manual for recommended oil.
4. Check all drive belts – water pump, alternator, fan drive for condition and tension. Adjust or replace as needed.

### EVERY 250 HOURS (OR EVERY 12 MONTHS)

1. Final Fuel Filter – Replace filter element.
  2. Seat Bar Pivot – Grease as needed.
  3. Steering Lever Pivots – Lubricate with multi-purpose lithium based grease (2 places).
  4. Replace hydraulic reservoir breather cap.
  5. \*Check hydrostatic drive belt. Adjust as needed.
- \*Check new hydrostatic drive belt after the first 50 hours of operation; adjust as needed.

### EVERY 1000 HOURS (OR EVERY 12 MONTHS)

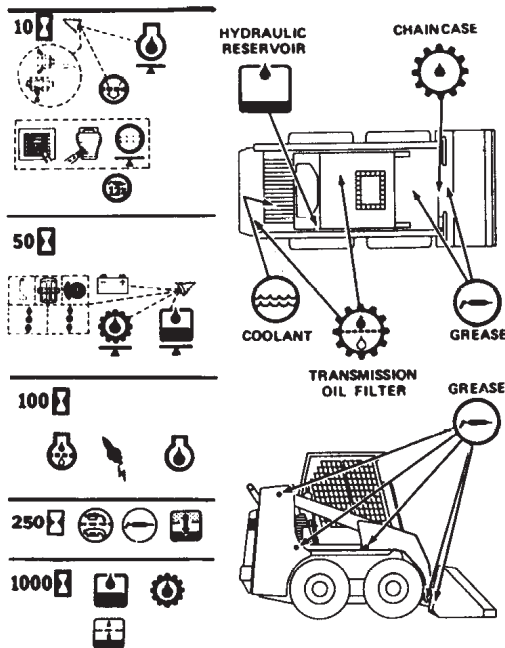
1. Hydraulic Reservoir – Change fluid and filter. See your Operation & Maintenance Manual for recommended fluid and filter.
2. Chaincase – Drain fluid and replace. See your Operation & Maintenance Manual for recommended fluid.
3. Fan Drive Gearbox – Check fluid level. See your Operation & Maintenance Manual for recommended fluid.

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.

Voit le Manuel de l'opérateur et d'entretien pour d'autres renseignements.



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## ATTACHMENT AND BUCKETS (Cont'd)

### Installation And Removal

The loader is equipped with the Bob-Tach system. The Bob-Tach is used for fast changing of buckets and attachments. See the Attachment Operator's Manual to install other attachments.

#### **WARNING**

**Bob-Tach levers have spring tension. Hold lever tightly and release slowly. Failure to obey warning can cause injury.**

W-2054-1285

Pull the Bob-Tach levers all the way up.

Tilt the Bob-Tach forward. Drive the loader forward until the top edge of the Bob-Tach is completely under the flange of the bucket [A].

DO NOT hit the Bob-Tach levers on the bucket.

Tilt the Bob-Tach backward until the bucket is off the ground [B]. Stop the engine.

#### **WARNING**

##### **AVOID INJURY OR DEATH**

**Before you leave the operator's seat:**

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar, move pedals until both locked.

W-2045-1086

Push down on the Bob-Tach levers until they are in the locked position [C].

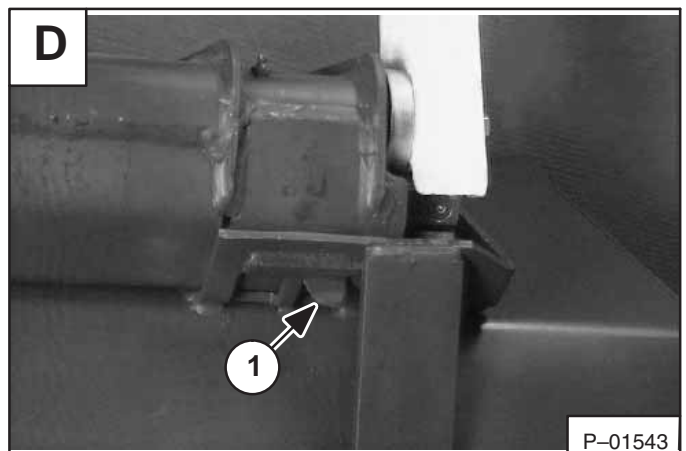
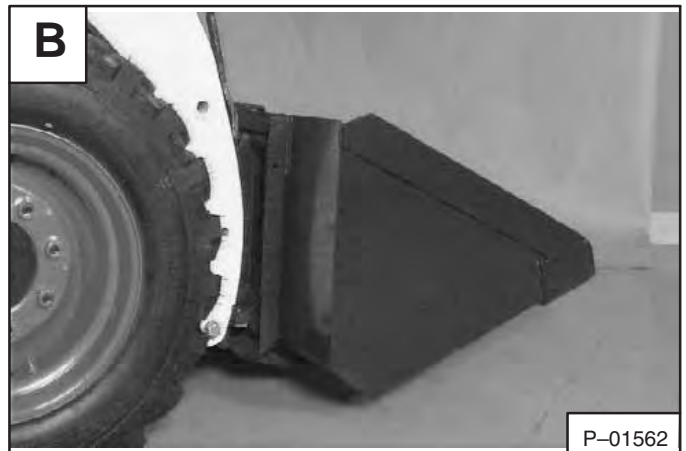
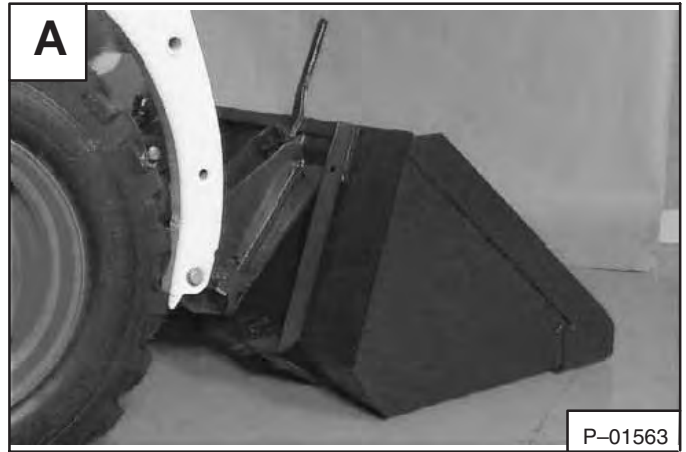
#### **WARNING**

**Bob-Tach wedges must extend through the holes in attachment. Lever(s) must be fully down and locked. Failure to secure wedges can allow attachment to come off and cause injury or death.**

W-2102-0497

The wedges (Item 1) [D] must extend through the holes in the bucket or attachment.

Removal: Reverse the above procedure to remove the bucket or attachment from the Bob-Tach.



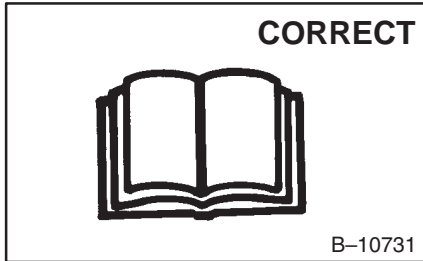
# MAINTENANCE SAFETY


## **WARNING**

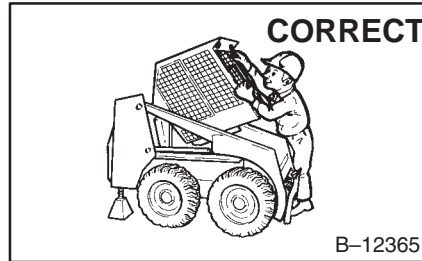
Instructions are necessary before operating or servicing machine. Read Operation & Maintenance Manual, Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service.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

W-2003-0797

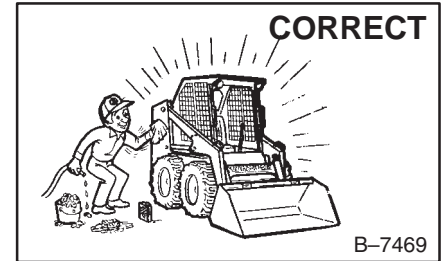
 **Safety Alert Symbol:** This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.




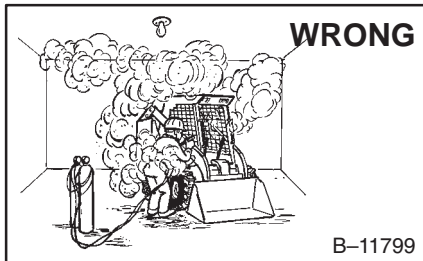
 **Never service the Bobcat® Skid Steer Loader without instructions.**





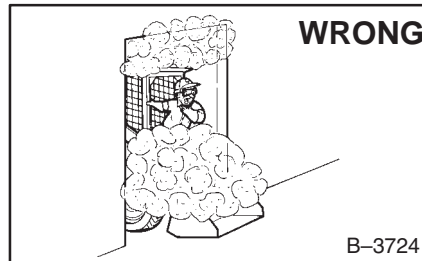
 **Use the correct procedure to lift or lower operator cab with lift arms down.**





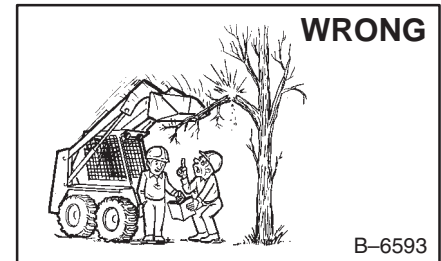
 **Cleaning and maintenance are required daily.**





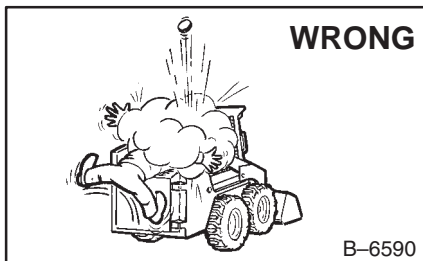
 **Have good ventilation when welding or grinding painted parts.**  
 **Wear dust mask when grinding painted parts. Toxic dust and gas can be produced.**







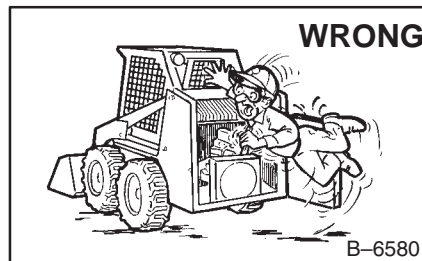
 **Vent exhaust to outside when engine must be run for service.**  
 **Avoid exhaust fume leaks which can kill without warning. Exhaust system must be tightly sealed.**






 **Never work on loader with lift arms up unless lift arms are held by an approved lift arm support device. Replace if damaged.**  
 **Never modify equipment or add attachments not approved by Melroe Company.**






 **Stop, cool and clean engine of flammable materials before checking fluids.**  
 **Never service or adjust loader with the engine running unless instructed to do so in the manual.**  
 **Avoid contact with leaking hydraulic fluid or diesel fuel under pressure. It can penetrate the skin or eyes.**  
 **Never fill fuel tank with engine running, while smoking or when near open flame.**



 **Keep body, jewelry and clothing away from moving parts, electrical contacts, hot parts and exhaust.**  
 **Wear eye protection to guard from battery acid, compressed springs, fluids under pressure and flying debris when engines are running or tools are used. Use eye protection approved for type of welding.**  
 **Keep rear door closed except for service. Close and latch door before operating the loader.**



 **Lead-acid batteries produce flammable and explosive gases.**  
 **Keep arcs, sparks, flames and lighted tobacco away from batteries.**  
 **Batteries contain acid which burns eyes or skin on contact. Wear protective clothing. If acid contacts body, flush well with water. For eye contact flush well and get immediate medical attention.**

Maintenance procedures which are given in the Operation & Maintenance Manual can be performed by the owner/operator without any specific technical training. Maintenance procedures which are **not** in the Operation & Maintenance Manual must be performed **ONLY BY QUALIFIED BOBCAT SERVICE PERSONNEL**. Always use genuine Bobcat replacement parts.

MSW01-0698

## FUEL SYSTEM (Cont'd)

### Removing Air From The Fuel System

After replacing the fuel filter element or when the fuel tank has run out of fuel, the air must be removed from the fuel system prior to starting the engine.



## WARNING

Diesel fuel or hydraulic fluid under pressure can penetrate skin or eyes causing serious injury. Fluid leaks under pressure may not be visible. Use a piece of cardboard or wood to find leaks. Do not use your bare hand. Wear safety goggles. If fluid enters skin or eyes, get immediate medical attention.

W-2074-1285

Open the vent (Item 1) [A] & [B] on the fuel filter housing.

Operate the hand pump (priming bulb) until fuel flows from the vent with no air bubbles [A] & [B].

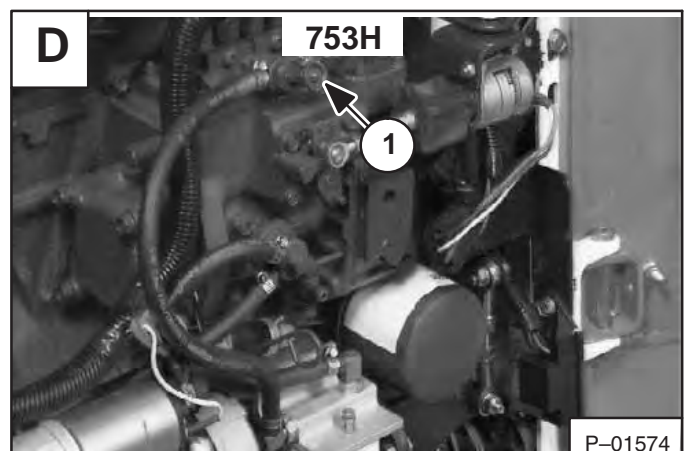
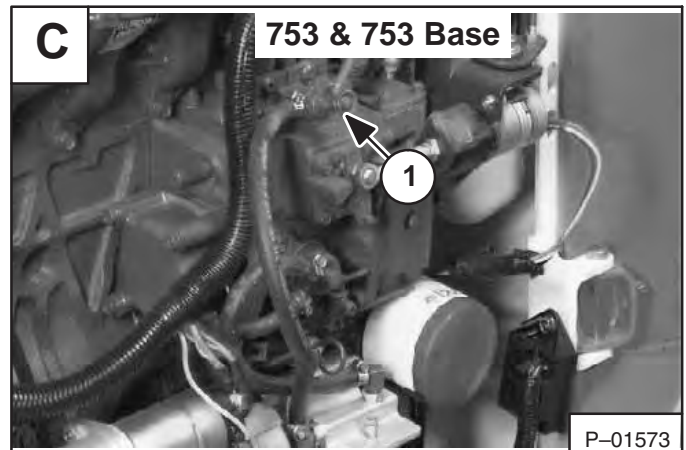
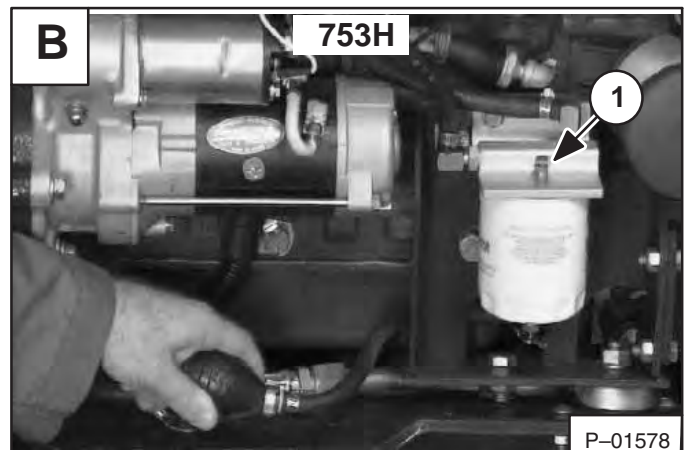
Close the vent (Item 1) [A] & [B] on the fuel filter housing.

Open the vent (Item 1) [C] & [D] on the fuel injection pump.

Operate the hand pump (priming bulb) until the pump feels solid [A] & [B].

Tighten the vent plug [C] & [D].

Start the engine. It may be necessary to open the vent plug (at the fuel injection pump) briefly until the engine runs smoothly.



## HYDRAULIC/HYDROSTATIC SYSTEM (Cont'd)

### Hydraulic Fluid Replacement

See the *SERVICE SCHEDULE* Page 33 for the service interval.

The fluid must also be replaced if it becomes contaminated or after major repairs.

Remove the reservoir fill cap (Item 1) [A].

**NOTE: Check to make sure the rubber gasket is installed on the fill cap.**

Raise the operator cab. (See Page 35.)

Disconnect the hose from the case drain filter and plug the filter and case drain hose [B].

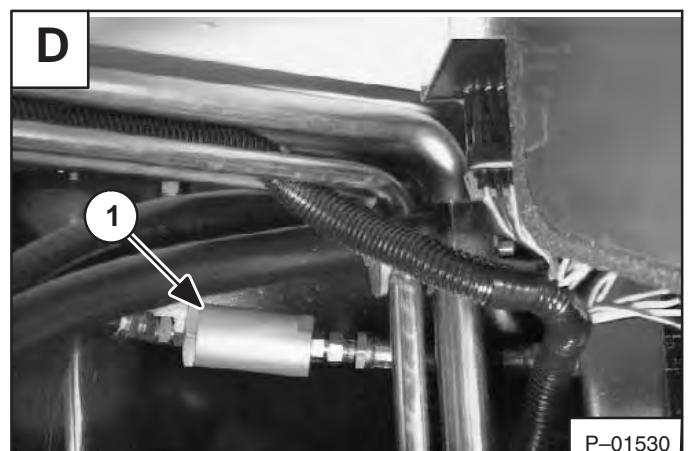
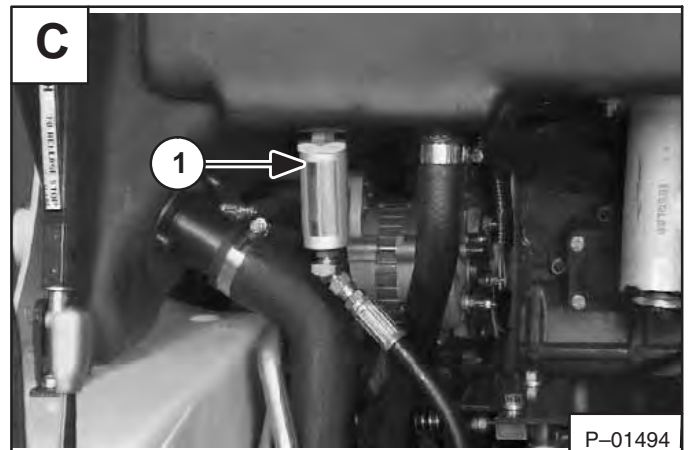
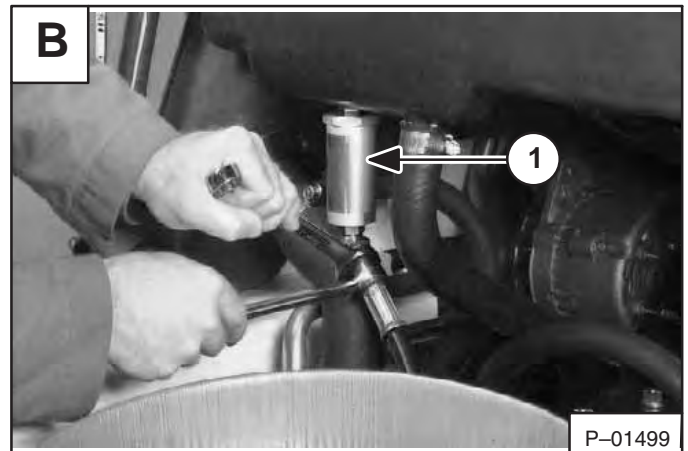
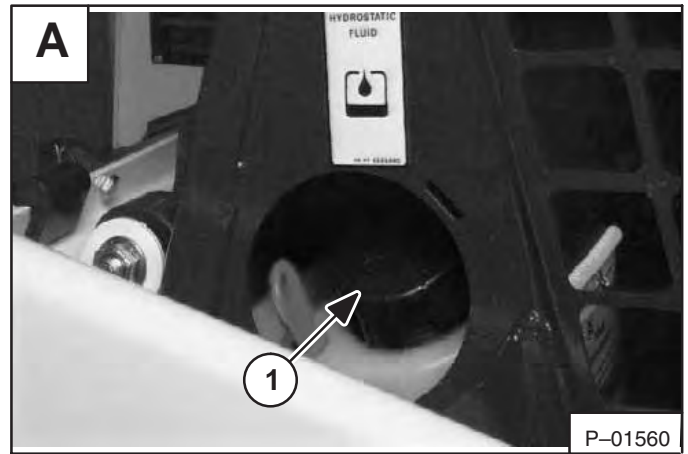
Remove the case drain filter and drain the fluid into a container.

Replace the hydraulic/hydrostatic filter element.

Replace both case drain filters (Item 1) [C] & [D] on the hydrostatic motors.

When all the fluid is removed from the reservoir, reconnect the hose to case drain filter on the reservoir.

Add the correct fluid to the reservoir until the fluid level is between the marks on the dipstick. DO NOT fill above the top mark on the dipstick.



## ! WARNING

Hydraulic fluid escaping under pressure can have sufficient force to enter a person's body by penetrating the skin. This can cause serious injury and possibly death if proper medical treatment by a physician familiar with this injury is not received immediately.

W-2145-0290

## ! WARNING

Always clean up spilled fuel or oil. Keep heat, flames, sparks or lighted tobacco away from fuel and oil. Failure to use care around combustibles can cause explosion or fire which can result in injury or death.

W-2103-1285

Start the engine and operate the loader hydraulic controls. Stop the engine. Check for leaks. Check the fluid level in the reservoir and add as needed.

# SYSTEMS ANALYSIS

SERVICE CODES .....63 . .

**SYSTEMS  
ANALYSIS**

5. Sistema hidráulico/hidrostatico (solamente modelos 400 y 500)—Cambiar el filtro. Nota: El filtro ha de cambiarse antes si el indicador de aviso de la transmisión permanece encendido más de 5 minutos después de que el fluido hidráulico haya alcanzado su temperatura de trabajo.

#### **CADA 250 HORAS (O CADA 12 MESES)**

1. Filtro Final del Combustible—Reemplace el elemento del filtro.
2. Pivotes de la Palanca de la Dirección—Lubriquelos con grasa de base de litio para uso múltiple (2 sitios).
3. \*Correa de transmisión. Comprobar si está desgastada o deteriorada. Ajustar si es necesario.  
\*Inspeccione la nueva correa después de transcurridas las primeras 50 horas de funcionamiento. Ajustar si es necesario.
4. Transmisión (500 solamente)—Engrasar acoplamiento universal de la transmisión (modelo 500 solamente). Ver tipo de grasa en el Manual de Utilización y de Mantenimiento.
5. Sistema hidráulico/hidrostatico—Reemplazar el tapón respiradero del depósito hidráulico y cambiar el elemento del filtro. (853—reemplazar 2 elementos de filtro). Nota: El elemento filtrante debe ser cambiado antes si el indicador de la transmisión permanece encendido más de 5 minutos después de que el fluido hidráulico haya alcanzado su temperatura de trabajo.

#### **CADA 1000 HORAS (O CADA 12 MESES)**

1. Depósito hidráulico—Reemplazar el aceite. Véase tipo de aceite en el Manual de Utilización y de Mantenimiento.
2. Filtro de purge de los motores hidráulicos—Limpiar o cambiar si existen.
3. Carter de la cadena—Vaciar y reemplazar el aceite. Véase tipo de aceite en el Manual de Utilización y de Mantenimiento.
4. Carter de engranajes del ventilador—Comprobar el nivel. Véase tipo de aceite en el Manual de Utilización y de Mantenimiento.
5. BICS—Comprobar el mando auxiliary de derivación de los brazos de elevación.

### **PROGRAMME D'ENTRETIEN (FRENCH)**

#### **TOUTES LES 10 HEURES**

1. Huile moteur—Contrôler le niveau—Nepas dépasser le niveau (consulter le Manuel de l'Opérateur et d'Entretien pour l'huile recommandée).
2. Filtre à air du moteur—Contrôler la jauge et/ou l'affichage. Entretien uniquement si nécessaire.
3. Circuit de refroidissement du moteur—Nettoyer les débris du refroidisseur d'huile, du radiateur et des grilles. Contrôler à froid le niveau de liquide de refroidissement et rajouter si nécessaire un mélange d'éthylène-glycol/eau à 53/47.
4. Bras de levage de la chargeuse, vérins, pivots et axe du Bob—Tach: lubrifier avec de la graisse tous usages à base de lithium (12 points).
5. Circuit d'air du moteur—Rechercher les fuites et les éléments endommagés.
6. Généralités—Rechercher les pièces desserrées ou brisées, voir si la ceinture de sécurité est endommagée de même que la cabine de l'opérateur, contrôler le fonctionnement des instruments, rechercher les écrous de roue desserrés, les fuites d'huile, etc... Vérifier l'arceau de sécurité et réparer ou remplacer selon besoin avant d'utiliser la chargeuse.
7. Ceinture de sécurité/Verrouillages de barre de siège et de commandes—Fonction de vérification. Réparer ou remplacer selon les besoins. Nettoyer la saleté et les débris.
8. Filtre d'alimentation—Vidanger l'eau de condensation (moteur diesel uniquement).

9. BICS—Vérifiez le fonctionnement. Nettoyez la saleté, les débris ou les objets se trouvant sous ou derrière le siège selon le besoin.
10. Pneus—Vérifiez la pression de gonflage. Gonflez les pneus à la pression MAXIMUM indiquée sur la paroi latérale des pneus.

#### **TOUTES LES 50 HEURES**

1. Huile hydraulique—Vérifier le niveau d'huile. Consulter le Manuel de l'Opérateur et d'Entretien pour l'huile.
2. Carter de chaînes—Vérifier le niveau. Consulter le Manuel de l'Opérateur et d'Entretien pour l'huile.
3. Batterie—Contrôler l'état de la batterie.
4. Commandes et freins—Contrôler le fonctionnement et régler si nécessaire.
5. Huile moteur (série 450 uniquement)—Vidanger à chaud. Consulter le Manuel de l'Opérateur et d'Entretien.

#### **TOUTES LES 100 HEURES**

1. Silencieux para-étincelles—Vider la chambre à étincelles.
2. Circuit d'allumage—Si on utilise de carburant au plomb, vérifier les bougies et l'allumage. Si on utilise du carburant sans plomb, effectuer l'entretien uniquement selon besoin afin de maintenir de bonnes performances au démarrage et un fonctionnement régulier (moteur à essence uniquement).
3. Huile moteur—Vidanger à chaud et changer le filtre. Consulter le Manuel de l'Opérateur et d'Entretien. (Toutes les 250 heures pour les séries 700 équipées d'un moteur KUBOTA.)
4. Contrôler tous les entraînements par courroie: hydrostatique, pompes à eau, alternateur et ventilateur; vérifier l'état et la tension des courroies. Régler ou remplacer selon besoin.
5. Circuit hydraulique/hydrostatique (séries 400 et 500 uniquement)—Replacer l'élément du filtre. Remarque: L'élément de filtre doit être remplacé plus tôt si le signal d'avertissement pour la transmission reste allumé plus de 5 minutes après que l'huile ne soit à température.

#### **TOUTES LES 250 HEURES (OU TOUS LES 12 MOIS)**

1. Filtre d'alimentation final—Remplacer l'élément du filtre.
2. Pivots des leviers de direction—Lubrifier avec de la graisse tous usages à base de lithium (2 points).
3. Courroie de transmission—Vérifier et tendre si nécessaire. Vérifier la courroie de remplacement après 50 heures d'utilisation et régler si nécessaire.
4. Transmission (série 500 uniquement)—Graisser le cardan. Consulter le Manuel de l'Opérateur et d'Entretien.
5. Circuit hydraulique/hydrostatique—Remplacer le bouchon de reniflard du réservoir hydraulique et remplacer l'élément de filtre (853—remplacer deux (2) éléments de filtre). Remarque: L'élément de filtre doit être remplacé plus tôt si le signal d'avertissement de transmission reste allumé plus de 5 minutes après que le liquide hydraulique soit à température.

#### **TOUTES LES 1000 HEURES (OU TOUS LES 12 MOIS)**

1. Réservoir hydraulique—Remplacer l'huile. Consulter le Manuel d'Opération et d'Entretien pour l'huile recommandée.
2. Filtre de drain de moteurs de transmission—Nettoyer ou remplacer si existant.
3. Carter de chaînes—Vidanger l'huile et la remplacer. Consulter le Manuel de l'Opérateur et d'Entretien pour l'huile recommandée.
4. Réducteur du ventilateur—Contrôler le niveau d'huile. Consulter le Manuel de l'Opérateur et d'entretien pour l'huile recommandée.
5. BICS—Vérifier le fonctionnement de la vanne de descente du bras de levage.

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