

**SERVICE NEWS LETTER**

**DATE:** July 21, 2003

**PRODUCT:** All machines manufactured by Tigercat Industries Inc.

**SUBJECT:** Fire Extinguisher Nozzle Access Holes

**DESCRIPTION:** Hand held fire extinguishers are most effective at fighting fires when their internal, pressurized, dry chemical powder is fully discharged directly at the fuel source of the fire.

The secure enclosure doors, panels and guards typically installed on all forestry equipment can make proper discharge inside the enclosure difficult to achieve. Recently Tigercat Industries began to build all new machines with fire extinguisher nozzle access holes cut into the machine enclosure panels. These holes will make portable fire extinguishers more effective when used in a fire emergency.

This Service News Letter outlines recommendations that all owners should take to modify their older Tigercat machines in a similar manner.

**PROCEDURE:** The photographs below show the access holes and warning labels on a current production Tigercat 718 wheel feller buncher. The location of access holes will vary with each different machine type. These locations are outlined in drawings supplied with the kit specific for each type of machine.

The access holes are 1 inch in diameter to accept the  $\frac{3}{4}$  inch outside diameter nozzle commonly found on larger hand held fire extinguishers. Before adding access holes to an older machine first determine that the 1 inch diameter hole will accept the extinguisher nozzles found at the machine worksite.



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Some of the criteria used for locating the fire extinguisher nozzle access holes on Tigercat forestry machines are:

1. Access holes should be immediately and directly accessible without blockage from tires, other machine components, etc. Access holes should be in an easily accessible area that can be reached safely and comfortably by an operator. This may not be possible on some machine types where the engine enclosure is higher from the ground. These higher types of machines should have access holes located as close to the ground as possible, while still remaining effective for their purpose.
2. Holes should provide access to the diesel engine, hydraulic pumps, major electrical components, known areas of debris accumulation, etc.
3. The discharge of a fire extinguisher through an access hole should not be immediately blocked by components inside the machine enclosure. A blockage will prevent an adequate dispersal of the fire extinguisher dry chemical powder.

The following nozzle access kits have been created for each different type of Tigercat machine. Each kit consists of instructions to position the access holes. Warning labels to increase operator awareness of their purpose and location are included in the kits.

230, 230B, 235, 235B, 240, 240B, 245, 245B, 250, T240, T245, T245B loaders – Kit #17902B

620, 630, 630B, 635, 640 skidders – Kit # 19232B

718, 720, 720B, 720C, 720D, 724, 724D, 726 and 726B wheel feller bunchers – Kit # 17716B

822 and 830 track feller bunchers – Kit # 19173B

845 and 845B track feller bunchers – Kit # 19172B

853E, 860, 870 and 870B track feller bunchers – Kit # 19171B

The Fire Extinguisher Access Hole Label created to identify these locations is shown below.  
(Tigercat Part # 20229A)



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**Before starting work, read and follow all “servicing safety precautions” as listed in the machine and attachment operating / service manuals and parts catalogs**

**PARTS REQUIRED:**

Fire Extinguisher Access Hole Kit

<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>QUANTITY</u>
200 series loaders	17902B	1
600 series skidders	19232B	1
700 series wheel feller bunchers	17716B	1
822, 830 track feller bunchers	19173B	1
845, 845B track feller bunchers	19172B	1
853E, 860, 870, 870B track feller bunchers	19171B	1

PARTS ORDERING PROCEDURE: Contact your local Tigercat Dealer to order.

**SERVICE NEWS LETTER****\*\*\*\* Attention Tigercat Dealers & Customers \*\*\*\***

The next 4 pages of information outline specific steps which owners of any piece of forestry equipment can follow to reduce the potential for fire. The information is taken directly from the latest versions of the Tigercat Operator's Manuals supplied with each new machine.

Please copy this information and share it freely with all of your forestry customers.

**FIRE PREVENTION**

**When working in a forest environment**, it is impossible to prevent combustible debris from collecting in tight corners of the machine. This debris, in itself, may cause a fire; however, when mixed with fuel, oil or grease in a hot or confined place, the danger of fire is greatly increased.

The following fire prevention guidelines should be used to supplement the operator's fire prevention efforts. In no case should the guidelines be used, or assumed, as replacements for diligent operator efforts at preventing fires.

The following guidelines will help to keep your equipment up and running efficiently **and keep the risk of fire damage to a minimum.**

1. **Maintain a CHARGED fire extinguisher** on the machine at all times and **KNOW HOW TO USE IT.**
2. **Inspect the machine** for any signs of fuel or hydraulic system leakage and check for worn or eroded fuel or hydraulic lines before starting up any equipment.
3. **Remove debris and blow out dust regularly** from the air intake doors, engine radiator, hydraulic oil cooler and A/C condenser core to prevent overheating of the engine and hydraulics. Refer to **CLEANING A/C CONDENSER, OIL COOLER AND RADIATOR** in **SECTION 2** of the **OPERATOR'S MANUAL.**
4. **Blow off all debris and dust accumulated** near hot engine exhaust components (turbocharger and exhaust manifold as well as exhaust pipes and muffler) at the completion of each work shift or more frequently depending on logging conditions. Visual inspection after blow off to ensure thorough cleanliness is vital. Engine exhaust systems provide numerous small pockets where saw dust, small wood chips and other flammable forest debris can gather. Even small accumulations close to hot exhaust components can ignite and smolder. If dislodged by vibration this smoldering debris can fall into other areas of the machine and thereby spread a fire.

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5. **Clean out all accumulated forest debris** (twigs, pine needles, branches, bark, leaves, saw dust, small wood chips) and any other combustible materials from inside the machine belly pans or lower machine structures as well as from areas in proximity to the engine, fuel and hydraulic oil systems no less frequently than at the completion of each work shift.
6. **Clean up any grease, diesel fuel, hydraulic and lubricating oil** accumulation and spillage immediately.
7. **Steam clean the engine**, transmission, brake, fuel and hydraulic tank compartments of all equipment at least once a month or more frequently depending on logging conditions.
8. **Be cautious when smoking.** An open flame, a lighted cigarette, etc., should not be permitted around any vehicle, especially during fuelling operations and/or when the fuel system is open to the atmosphere, and/or when servicing batteries.
9. **Shut down equipment immediately** when a problem is suspected or smoke is detected.
10. **Park the machine at least 50 feet away** from other equipment at the end of each shift.
11. **Turn the battery disconnect switch to OFF** at shut down to avoid loss by electrical short.
12. **Remain with the machine** for at least 45 minutes at the end of operations while the machine cools.
13. **Once a fire has started** on a machine hoses will quickly burn through causing pressurized fluids (diesel fuel, hydraulic oil, etc.) to fuel the fire. NEVER leave the machine parked with booms or arches suspended off the ground as they will inject hydraulic oil into the fire if a supporting hose burns through.
14. **Remove all keys**, lock equipment and fuel cap at the end of operations to reduce the risk of vandalism.
15. **Before starting repair work**, such as welding, the surrounding area should be cleaned and a fire extinguisher should be close by.
16. **Use only nonflammable solutions for cleaning** the machine or components.
17. **Store rags and other combustible materials** in a safe, fireproof location.
18. **Do not use the machine** on top of or to push piles of burning timber. A machine fire will result.

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EQUIPMENT FIRES ADVERSELY EFFECT YOUR ABILITY TO LOG, MAY INCREASE YOUR INSURANCE PREMIUMS DRAMATICALLY OR PREVENT YOU FROM OBTAINING INSURANCE COVERAGE AT ALL.

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### **WHAT ELSE TO DO BEFORE YOU EXPERIENCE A FIRE**

- Ensure that you are familiar with emergency procedure in the event of a fire.
- Ensure that your fire suppression system\* is charged and functional.
- Ensure that any hand held fire extinguishers are charged and functional.
- Ensure that any stored water systems on the machine are charged and functional.
- Ensure that the nozzle of any hand held extinguishers available at the work site fits within the access holes in the doors of the machine.
- Ensure that you have the proper fire extinguishers on site. Most fires involving mobile equipment will be of the **A** or **B** type. You should have a dry chemical extinguisher rated **ABC** and a pressurized water extinguisher rated **A**.
- Prevent the fire from happening by ensuring that the machine is cleaned regularly and all systems are well maintained.

**\*NOTE:** Dry chemical fire suppression systems are offered by Tigercat as an optional installation on some of the Tigercat product lines. Please disregard any references made to fire suppression systems if not installed on your machine.

### **WHAT TO DO IN CASE OF A MACHINE FIRE**

- At all times ensure your own personal safety and the safety of anyone that may be in the area. Approach any fire with extreme caution.
- If the machine is in a dangerous position, attempt to move to a safe position. Lower working attachment to the ground.
- Shut the engine off.
- Activate the fire suppression system\*
- Radio or call for help (as appropriate).
- Exit the machine taking fire extinguisher or water hose (if applicable) with you.
- If you can safely open the access panels to the machine, in the area of the fire, do so.
- If you can safely do so, attempt to extinguish the fire.
- A dry chemical fire extinguisher should be used first, if available.

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- Use the **PASS** method with most extinguishers.
  - **P**ull the pin. This will allow you to discharge the extinguisher.
  - **A**im at the base of the fire. If you aim at the flames (which is frequently the temptation), the extinguishing agent will fly right through and do no good. You want to hit the fuel.
  - **S**queeze the top handle or lever. This depresses a button that releases the pressurized extinguishing agent in the extinguisher.
  - **S**weep from side to side until the fire is completely out. Once the fire is out, keep an eye on the area in case it re-ignites.
- If you are unable to open the access door(s), but can safely reach the fire extinguisher access hole, place the nozzle of the fire extinguisher into the appropriate fire extinguisher access hole and discharge the extinguisher.
- Failing all attempts to access the machine compartment, attempt to discharge the extinguisher through the mesh or any available openings on the machine.
- Use the pressurized water hose supplied with the machine (if applicable) or a pressurized water extinguisher (if available) after the discharge of a dry chemical extinguisher or suppression system\* to remove heat build up from the area. A fire suppressed by a dry chemical powder may re-ignite with the latent heat of any debris in the area.
- Remain with the machine until help arrives to ensure that the fire does not re-ignite.

**WHAT TO DO AFTER A FIRE**

- Notify your equipment dealer and or **Tigercat Industries Inc.** by completing an incident report, Tigercat form number 5101.
- Ensure that the cause of the fire is determined and all appropriate repairs are completed before returning the machine to work.
- Ensure that the fire suppression system\* is properly serviced and returned to a functional state (if applicable).
- Ensure that all extinguishers used in fighting the fire are replaced or recharged as appropriate.