

# OPERATOR'S MANUAL

## Tigercat 726 FELLER BUNCHER

Issue 4.1, MARCH 2003

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726-SM00

#### 726 Available Literature

Operator's Manual (This Manual) ..... Part No. 4323A  
Service Manual ..... Part No. 1684A  
Parts Catalog ..... Part No. 1471A  
Hydraulic Adapters Book ..... Part No. 1472A  
Hose assembly Book ..... Part No. 3707A

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## 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.
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.

**COMMENTS AND  
INSTRUCTIONS****Recognizing the Dangers**

While it may appear that these illustrated danger areas can be visually recognized on the job by observing how far chips fly during a cut, that is only true for chips and other light weight materials. Metal parts and wooden spears can be thrown to surprisingly greater distances. Even distant personnel on the ground, in other vehicles, or in buildings are at risk if the throw is in their direction.

**Direction of throw**

The direction of possible tangential throw for metal parts and stones is dependent on the housing configuration and might be expected to be the same as observed for the chips. However, these throws can occur at any time the saw is running, in whichever direction the angle of throw is pointed by boom geometry, not just when a cut is being made.

**Throw distance**

The throw distance for metal pieces and stones, can be many times the distance shown by the pattern for chips. More testing and data collection is needed to pin down a “safe distance” but if someone or something is in a place that can be seen by the operator and in the throw direction of a high speed disc saw, then the operation is not safe regardless of the distance.

**Safe operating areas**

These saw heads must not be used in areas where the logging operation does not have control over the presence and movement of people. In particular, clearing of vegetation in urban and populated areas should not be done with a Tigercat manufactured or supplied high speed disc saw. High speed disc saw heads are intended for high productivity wood harvesting in areas remote from normal habitation. The possible presence of people and property within throw range and the likelihood of encountering scrap metal, wire fencing, steel posts and concrete must be respected.

**Assessing the potential dangers on the job site**

The extent of danger from high speed disc saws on the logging operation has to be assessed on the job site, depending on how much other work activity is in the area and whether the operator can do his job of cutting and bunching with good control of throw patterns. Danger is greater if the saw is equipped with detachable, or fragile, or brittle teeth, or if the site contains stones or abandoned metal.

# Tigercat 726 Feller Buncher

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## STARTING IN COLD WEATHER (WHEN APPLICABLE WITH OPTIONAL STARTING AID KIT)

Cold temperatures require the use of the engine block heater and the hydraulic oil heater. The use of an ether starting aid may also be required.

**CAUTION:** Cold startups can result in pump failure, refer to "HYDRAULIC OIL CHART" for recommended oil viscosities and temperature ranges.

Preheating of hydraulic oil is recommended as standard procedure in cold weather.

If a (ether) starting aid is being used;

- (a) Move throttle control to the HALF IDLE position.
- (b) Crank engine with starter one or two revolutions *before* injecting starter fluid.
- (c) Momentarily depress ETHER push button switch, using short "bursts" while cranking the engine at the same time. Stop injecting fluid after engine starts. If engine begins to die during the first few minutes, inject another "shot" of fluid.

**CAUTION:** To prevent damage to starter, do not engage starter motor for more than 15 to 20 seconds. Wait 2 minutes between each attempt to start the engine. If engine fails to start, refer to engine manufacturers operator's manual.

- (d) Once the engine is running evenly and the engine oil pressure is at NORMAL, move the throttle control to the LOW IDLE position and allow to run for approx. 5 minutes or until the engine coolant temperature gauge begins to register. If the engine oil pressure does not register on the gauge within 10 seconds stop the engine.

- (e) Before applying any load to the engine proceed with MACHINE PREPARATION.

## MACHINE PREPARATION

### SYSTEM TEST AND WARM-UP

Before commencing harvesting operations, follow steps (a) thru (n) to accomplish the following:

- Warm up the hydraulic system.
- Test all systems for proper operation.
- Inspect for hydraulic oil leaks.

**CAUTION:** If any system fails to respond to the controls, stop the warm-up procedure and call a mechanic, otherwise serious damage to pumps and other components could result.

Assuming machine was parked on level ground at last shutdown:

- (a) Start engine.
- (b) Ensure gauges and warning lights are indicating normal operating conditions.
- (c) Check that all personnel are clear of the machine.
- (d) Raise throttle control to the MID position.
- (e) Slowly raise and lower the boom and the main boom, check for proper operation.

With the felling head raised slightly off the ground:

- (f) Operate the accumulator and clamp arms and check for proper operation.
- (g) Tilt the felling head forward and back and check that it is operating correctly.
- (h) Steer the machine to the left and right.
- (i) When cold weather conditions exist, continue the process of warming up the hydraulic system by repeating steps (e) thru (h) several times. As the hydraulic system warms up, engine speed can be increased gradually to the HIGH IDLE position.
- (j) Turn saw on.
- (k) Observe all boom operations. If any operations are not operating as they should, take the necessary steps to correct the problem.

After completion of the warm-up and system testing, rest the felling head on the ground and turn the saw OFF.

**CAUTION: Ensure saw blade rotation has stopped before leaving the cab.**

- (l) Put the parking brake ON.
- (m) Move the throttle control to the LOW IDLE position.
- (n) Leave the cab and visually check hose connections and cylinders for leaks. Check under the machine for oil leaks.

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