762C Harvester Head Operator and Maintenance Manual

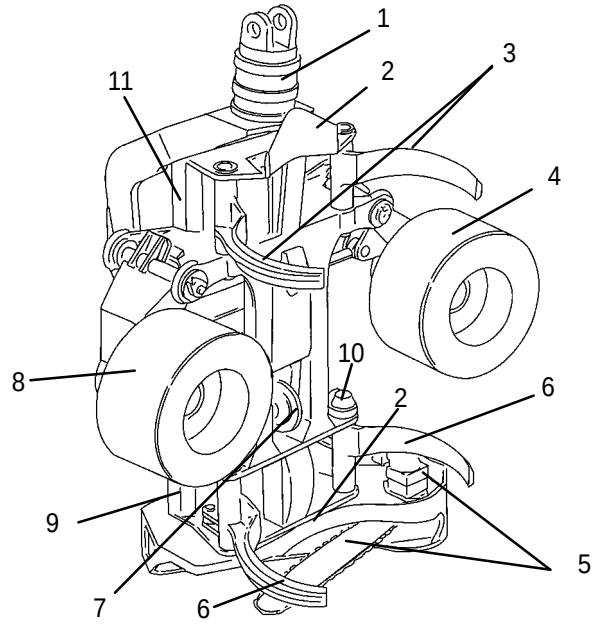
Operator's manual

762C Harvester Head

(EJ0762C001630–)

F069797 Issue 1.6.2005 (ENGLISH)

1.3 Main components of head



1. Rotator.
2. Fixed delimbing knife.
3. Moving delimbing knives, upper.
4. Left feed roller.
5. Saw bar with hydraulic motor.
6. Moving delimbing knives, lower.
7. Length measurement equipment.
8. Right feed roller.
9. Serial number of harvester head.
10. Diameter sensors on lower delimbing knives.
11. Valve block and controls for head functions.

- Take care to remove any snow or ice, twigs and bark from the area around the cutting equipment and the length measurement wheel.
- Never adjust hydraulic pressure without a manometer.
- Inspect the condition of the saw and its mountings, and check that there is no leakage or other faults.
- When working with the saw chain, always make sure that the engine is turned off. Use protective gloves. Always remove the saw chain when adjusting or servicing the saw unit.
- Watch out for colour marking dye streams or stump treatment fluid streams during testing and using the machine.
- The head may be repaired and maintained only by trained personnel or an authorized service workshop with proper tools and hoisting device.
- If it is absolutely necessary to remain in the vicinity of the head while the engine is running, particularly where a number of people are carrying out fault–finding procedures on the machine, for example, the following steps must always be taken:
  - Remove the connectors Y481, Y487, Y484 and Y470A for HHM or MFM.

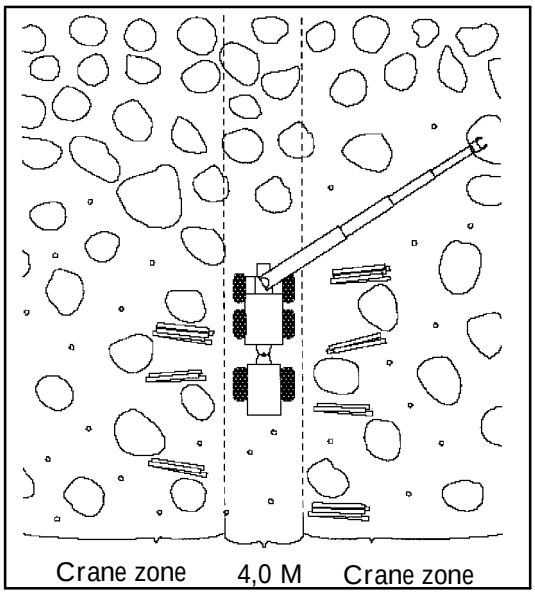
5.6 Working technique for thinning

5.6.1 Thinning with a harvester alone

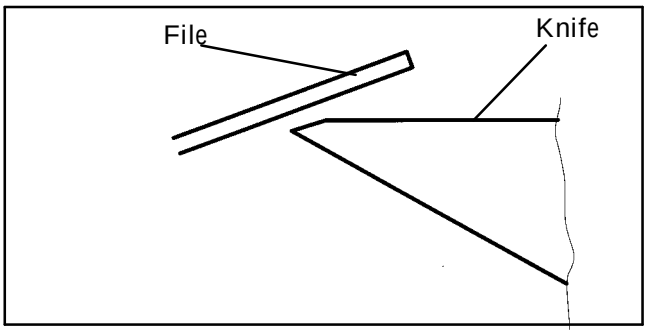
1. First, prepare the logging road.
   Delimb the trees above the logging road, which will allow you to leave the branches on the road.
   Drop branches on the roots of trees left standing to provide extra protection. If necessary, use the felling head to spread the branches evenly. The width of the logging road must be appr. four meters.
2. Decide where to stack the stems. Process the trees over the road and lay the stems on the opposite side.
   To minimise unnecessary movement of the creane boom you should fell trees alternatively on the right and left sides.
3. Choose the felling direction on the basis of the timber classification, since stems are often difficult to move after felling.
4. If possible, start with pulpwood so that this is beneath the main classification, as this will simplify forwarding.
5. It is often a good idea to fell slender trees at the outer limits of the crane boom reach towards the working track, except if the twigs are needed on the road.

If possible, process one tree species first, followed by the next.

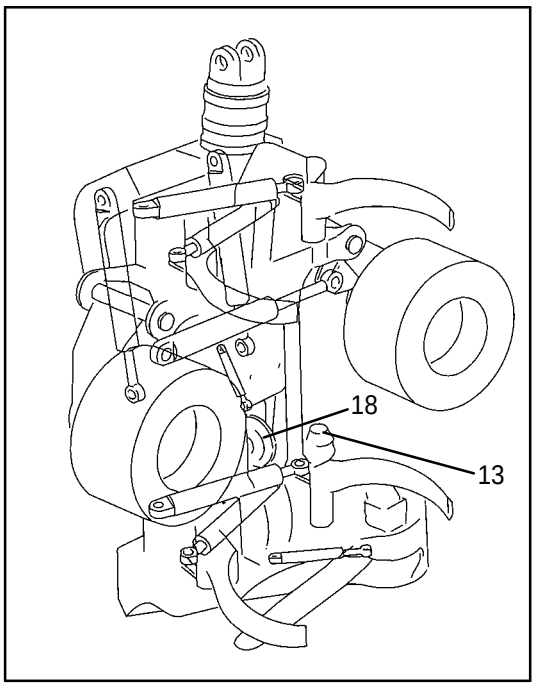
NOTE! Always bear in mind the timber classification before felling!



5.9.2 Delimbing

Problem	Action
S Poor delimbing performance from head.	S Delimbing knives incorrectly sharpened (blunt edge). S Delimbing knife pressure too low during feeding. S Branches too large for head.
S Delimbing knives dig into stem, head jams.	S The pressure of the delimbing knives is too high or there is not enough adjusting edge. S Adjust the edge to a suitable level by filing outwards from inside.
	 Remember! Delimbing knives can never be too sharp. These depend on the adjusting edge.
S Stem slides out of head during feeding.	S Pulse open time at start is too long, reduce the time programmed into computer. S If problem only occurs on the first log when processing large diameter stems, but disappears with smaller diameters, try following the stem with the head during feeding.

6.7 Weekly maintenance or after every 50 hours



Grease:

13. Grease the diameter sensors with cold–resistant and water–resistant grease (LE 4701; Lubrication Engineers, for instance) (2 nipples).

6.8 Service after every 250 hours

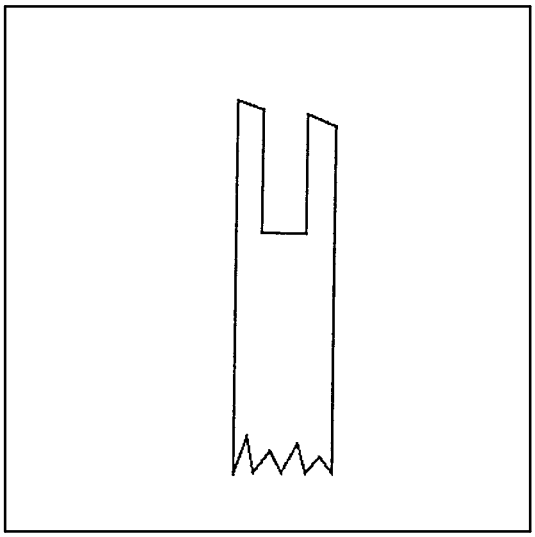
14. Check that the mountings have not become loose.
15. Check that the hydraulic hoses have not become damaged.
16. Check that the saw unit has not become damaged or cracked.
17. Check that the saw unit does not have any leaks.

6.9 After every 950 hours or with service

Grease:

18. Bearing for measurement roller.

3. Worn saw bar

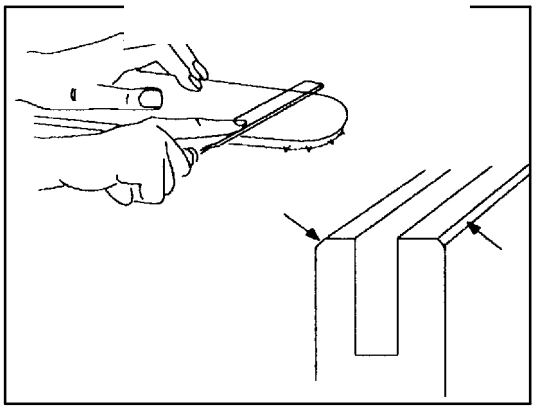


Always check the rail of the bar with regard to oblique wear each time the chain is changed.

An unevenly worn bar should be turned over, or replaced by another until the original one can be adjusted.

Groove rails should be ground at right angles at a suitable opportunity.

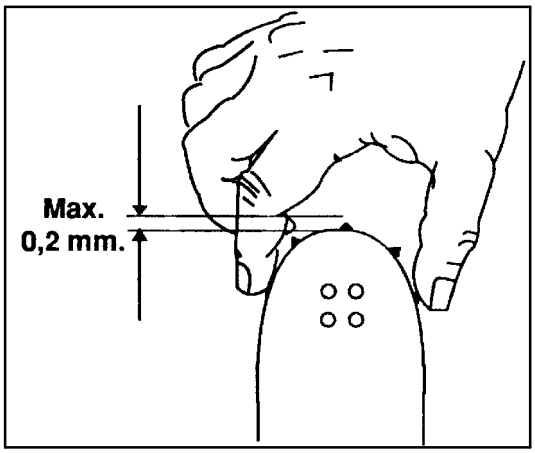
Remove burrs from the rails



This is necessary to minimize the risk of cracks.

1. Remove burrs with a file. File from the inside and outwards.
2. Then make a 45î chamfer.

6.12.10 Checking and replacement of chain idler



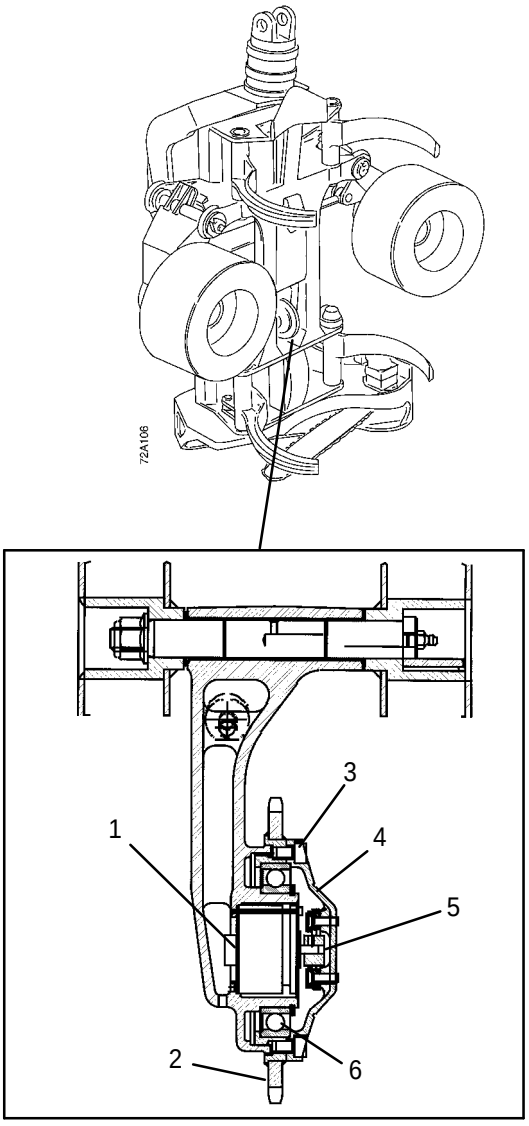
The chain idler should be replaced when its play is about 0.2 mm.

- Press out the rivets and remove the idler.
- Position a new chain idler pack on the tip of the saw bar and pull down the idler into position.
- Insert new rivets and peen them over on both sides. Ensure that the idler runs freely.

6.16 Length measuring equipment

The pulse generator is driven from the measuring wheel via a carrier.

1. Removing the encoder
   - Remove the four fastening screws (3) and pull off the cover (4).
   - Loosen the stop screws and pull off the carrier.
   - Remove the three screws holding the pulse generator (1).
   - Pull out the pulse generator (1) and disconnect the cables from the screw terminals on the back of the pulse generator.



60. Pump, saw chain lubrication
61. Tank, saw chain lubrication
62. Saw bar holder, saw chain lubrication
63. Rotator
64. Pressure relief valves, rotator
65. Control valve, rotator
66. Floating mode valve, rotator
68. Pressure reducing valve for automatic saw chain tensioner 2,0...2,5 MPa.
69. Pressure gauge port for 68.
70. Brake cylinders, chain tensioner
71. Tensioning cylinder, chain tensioner
72. Choke valve, 8.0 MPa.
73. Solenoid valve, paint A.
74. Solenoid valve, paint B.
75. Pump, paint A.
76. Pump, paint B.
77. Tank, paint A.
78. Tank, paint B.
79. Nozzle, paint A.
80. Nozzle, paint B.
81. Stump treatment

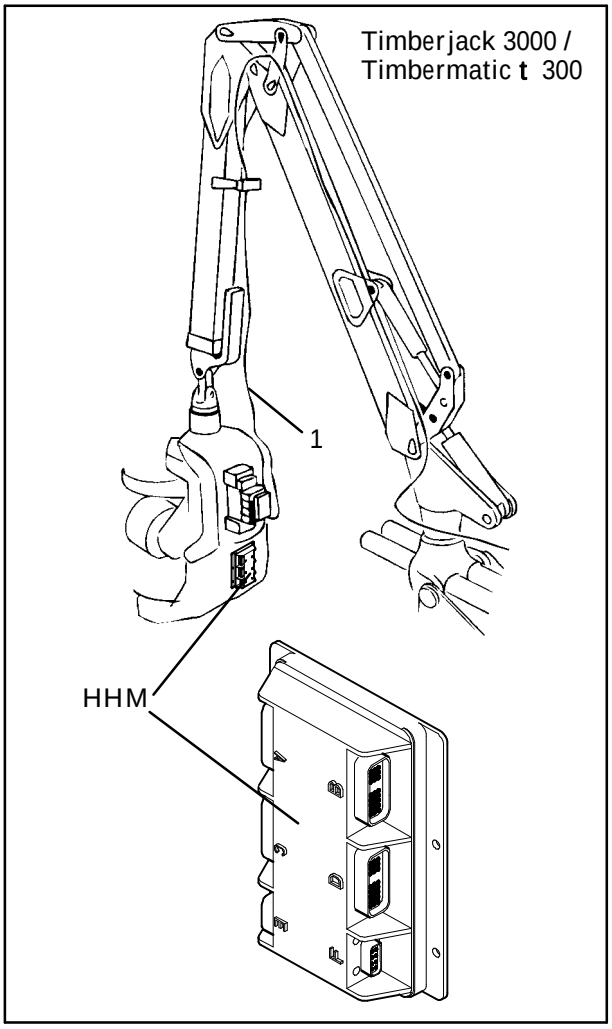
8. Electrical System

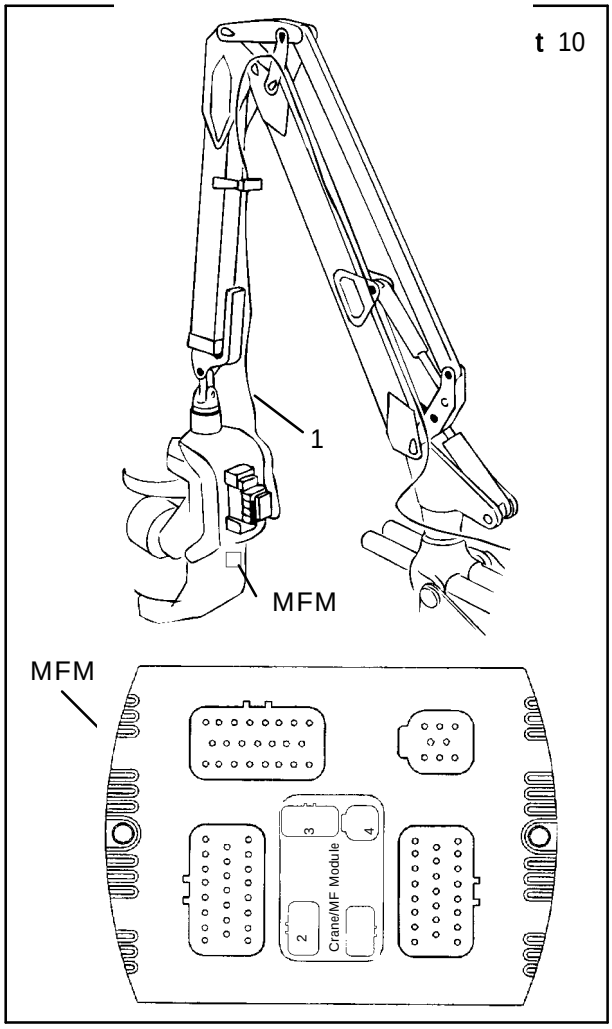
This chapter deals with the electric components of the harvester head and the electric diagrams.

Also refer to the instructions in the basic machine and the control system manual.

The control system components are capable of communicating via a CAN bus (1). For more information, see the control system manual.

The harvester head modules HHM and MFM are situated on the harvester head and control the signals to and from the head.





F615478 1/2

Item	Description	Diagram	Location
A13	HHM	100L	Harvester head
CB	40–pole connector	100J	HHM
CC	40–pole connector	116J	HHM
Y408	Rotator, clockwise **)	101F	Harvester head
Y409	Rotator, counterclockwise **)	102F	Harvester head
Y438	Color B *)	107F	Harvester head
Y456	Lower deimbing knives open	101T	Harvester head
Y457	Lower delimbing knives close	102T	Harvester head
Y466	Color C *)	108T	Harvester head
Y481	Tilt, up	110T	Harvester head
Y482	Feed rollers close	104T	Harvester head
Y483	Feed rollers open	105T	Harvester head
Y484	Saw motor	117F	Harvester head
Y485	Rotator release *)	110F	Harvester head
Y487	Tilt down	112T	Harvester head
Y487A	Float mode, tilt	107T	Harvester head
Y490	Forward feed	104F	Harvester head
Y491	Reverse feed	105F	Harvester head
Y492	Upper delimbing knives close	113T	Harvester head
Y493	Upper delimbing knives open	108F	Harvester head

*) optional
**) see group 8.3

4. Problems

   If the color marking does not work, check the strainers to ensure that they are clean.

   Also check to see if any foreign matter is present in the throttle valves of the delimbing knives. Finally, dismantle the nozzles and clean them.

   NOTE! Be careful when dismantling the nozzles. A spring and a ball lie under the nozzle and they can fall out if the harvester head is standing upright. Therefore, allow the head to rest firmly on the ground before beginning to dismantle.

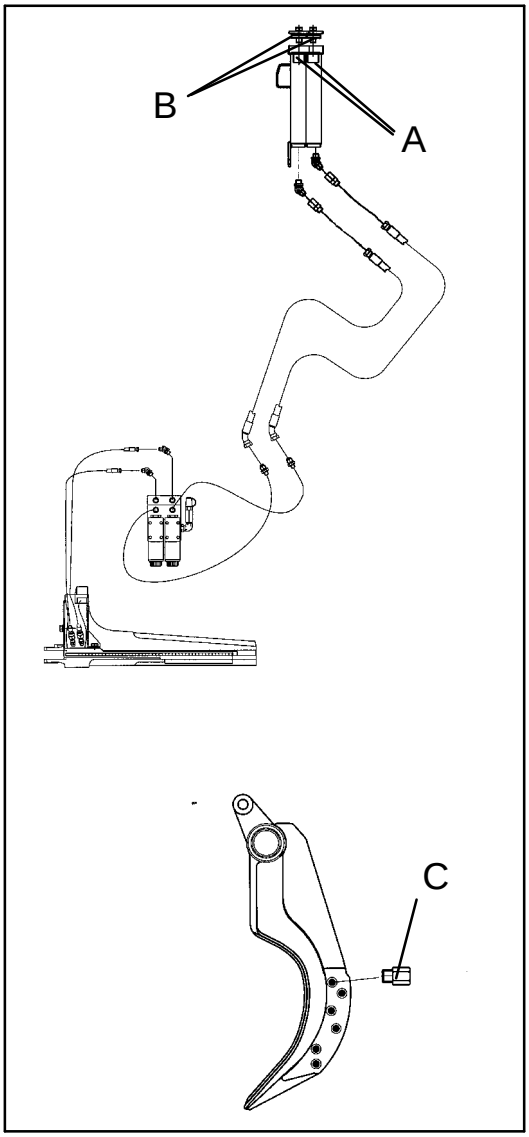
5. When not in use

   When standing still for a longer period the color tanks should be filled full with clear test drive fluid or diesel oil. Then run the system to flush out all color.

A Check valves

B Strainer under the filler cap

C Nozzle



6. Checking the pressure of color marking

   1. Connect the manometer to the measurement socket.
   2. Start up the machine.
   3. Actuate the harvester head close. Hold it down.
   4. Read off the pressure on the manometer.
   5. Adjust the pressure to 8.0 MPa if necessary.