Timberjack S586 Swing to Tree Felling Head

Operator Manual
Timberjack S586
Swing to Tree Felling Head
S/N: 10BC1327 & up

CALIFORNIA
Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

If this product contains a gasoline engine:

⚠ WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

Worldwide Construction And Forestry Division
LITHO IN U.S.A.

1.1 Foreword

To assist the operator in becoming familiar with the many features of the Felling Head, and thereby quickly become proficient in the operation and periodic maintenance procedures, this manual is provided with detailed operating and maintenance instructions as well as safety information and equipment data.

Throughout this manual, references are made to the front, rear, left, and right side of the machine. Consider the front from a seated position in the operator's seat with the felling head directly in front of you and the felling head arms as being left and right.

Where applicable throughout the text, "Safety Alert" symbols have been used to indicate important safety measures. Read carefully, understand, and follow these instructions to prevent hazardous situations that could lead to risk of personal injury.

The instructions and procedures in this manual cover the felling heads with the most commonly used options; therefore pictorial presentation in some areas may vary slightly from the actual machine. This variation, however, does not have any impact on the accuracy of the written information.

The information contained in this manual is current at the time of publication; however, continuing improvement may result in changes to the machine which are not covered. Should information regarding such changes or further information on the machine be required, please contact your Timberjack Forestry Attachments dealer.

3.5 Operating Safety Precautions

Prior to commencing work, check all equipment controls and ensure that the felling head responds correctly.

Maintain a safe operating distance 300 feet (100 metres) between the equipment and other personnel. Never swing the boom, attachment, or load over the heads of bystanders.

Raise the felling head before moving the vehicle. When traveling, keep it high enough to clear stumps.

Stop the disc saw blade when traveling to or from the felling site.

Shut the saw OFF immediately and stop the disc saw blade if an imbalance occurs. Do not operate the disc saw blade in an unbalanced condition.

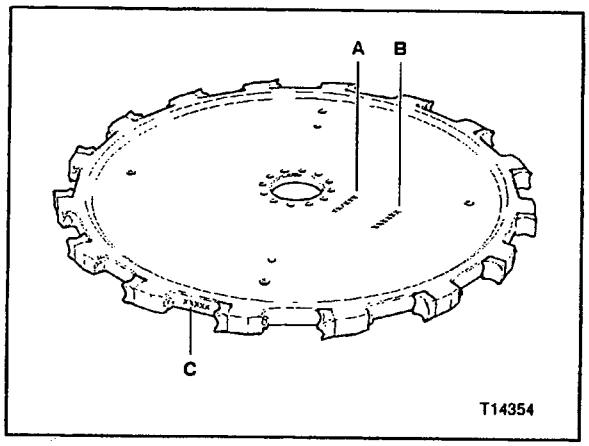
Turn the saw controls on only when the engine is idling.

Wait until the disc saw blade achieves full speed before cutting the tree.

Never operate the disc saw blade at a higher speed than the maximum upper limit.

Adhere strictly to all regulations at the work site pertaining to the operation of this equipment.

4.5 Disc Saw Blade Description



The Disc Saw Blade used on the S586 Felling Head has a 60.5 inch diameter cutting circle.

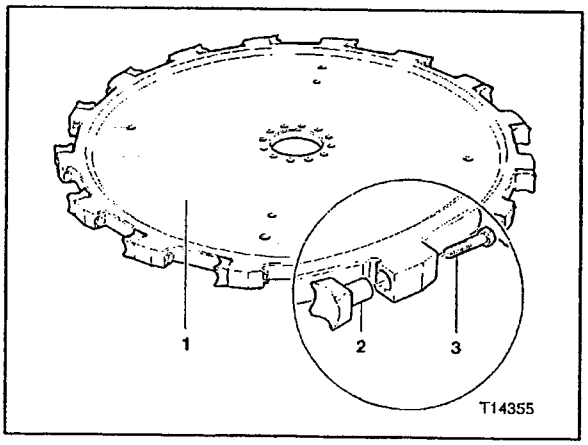
4.5.1 Serial Number Location

Each disc saw blade has the serial number stamped in three specific locations.

A. Approximately six inches from the center of the blade (top side).

B. Approximately half way between the center and the outside edge of the blade (top side).

C. On the outer edge between two of the teeth.

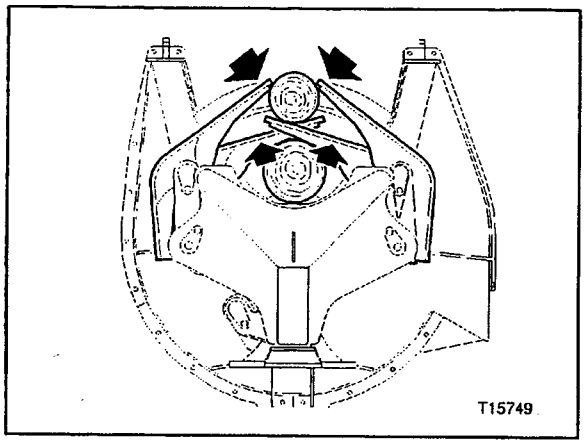


4.5.2 Blade with Hardened Teeth

1. Saw Disc
2. Saw Tooth - Hardened
3. Tooth Mounting Bolt

5.2 Operating Instructions

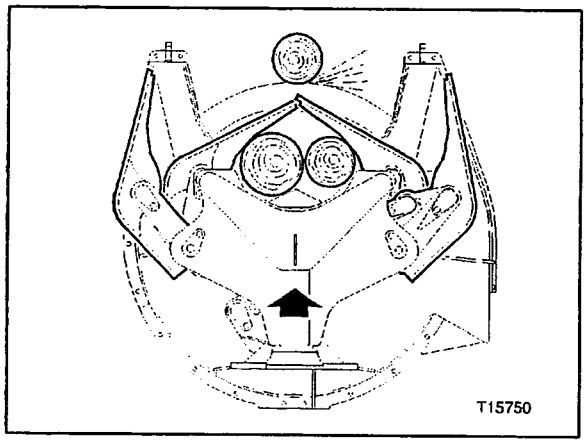
5.2.1 Cutting Multiple Trees



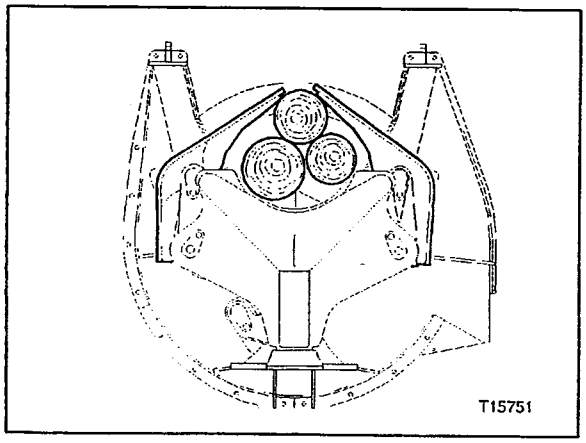
S586 Felling Head (Swing to Tree)

(Two Piece Upper (Accumulating) Clamp Arms)

4. Close the upper clamp arms on the second tree. The lower clamp arms slide out, spring open, and then close. Advance to the next tree.



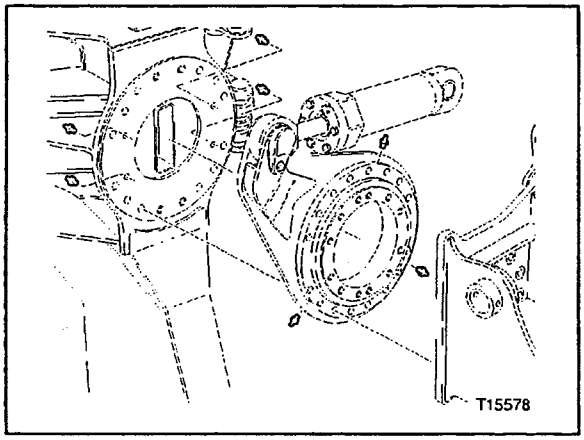
5. Open the upper clamp arms. The lower clamp arms now hold both trees. Cut the third tree.



6. When traveling, close both upper and lower clamp arms on the trees.

6.2 Maintenance Procedures

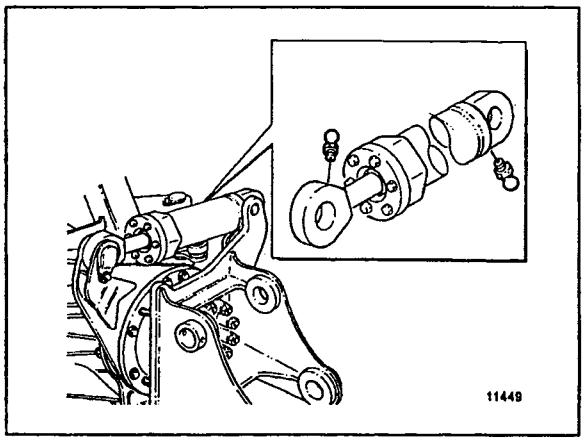
6.2.4 Maintenance - 8 Hours



2. Lubricate All Grease Fittings

Wrist Attachment Bearing

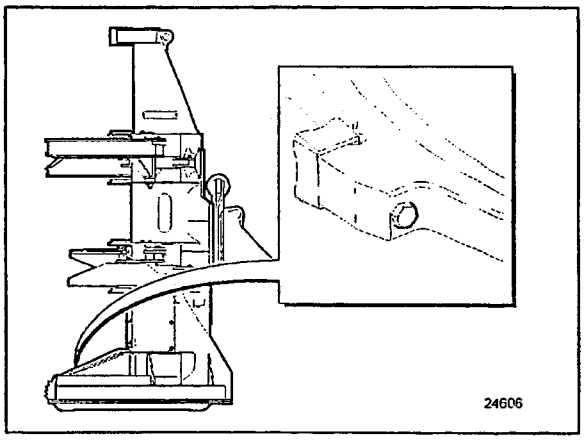
Purge 7 fittings.



Wrist Cylinder

Purge 2 fittings.

Use lithium based EP2 grease containing 3 - 5% molybdenum disulfide.



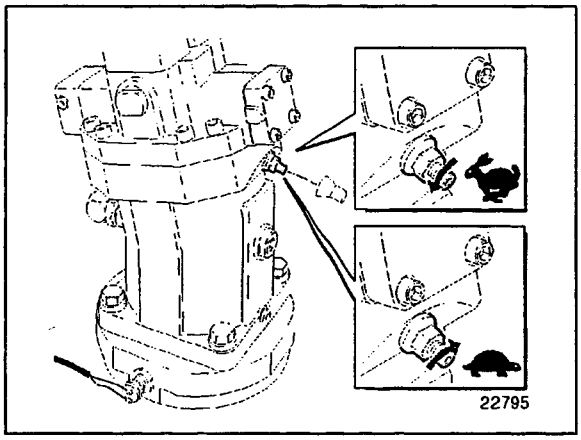
3. Check Saw Tooth Bolt Torque

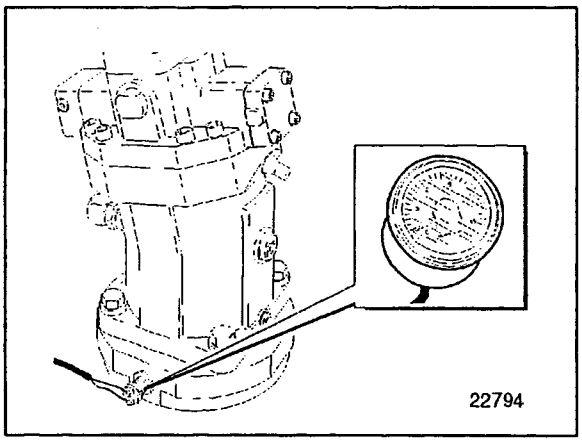
Torque the saw tooth bolt (5/8" - 18 UNF 4000 WK) torque to 160 lb ft (216 Nm).

Remove the guard to check the saw tooth bolts. Install the guard after checking all of the teeth.

6.2 Maintenance Procedures

6.2.6 Maintenance - 125 Hours





10. Check Disc Saw Blade R.P.M.

DANGER

Do not stand between open clamp arms on the butt plate when making adjustments. Make any adjustments from the side of the saw head only. Failure to follow these safety precautions can lead to risk of serious injury.

Remove the saw motor guard and install the tachometer as described in section 8. With the disc saw blade guard in place and the disc saw blade free to rotate, turn the saw On and bring the engine speed up to full rpm.

See specifications for applicable blade speed (Section 10).

If speed adjustment is necessary:

A. turn the saw speed adjusting screw out (counter clockwise) to increase the blade speed.
B. turn the saw speed adjusting screw in (clockwise) to decrease blade speed.

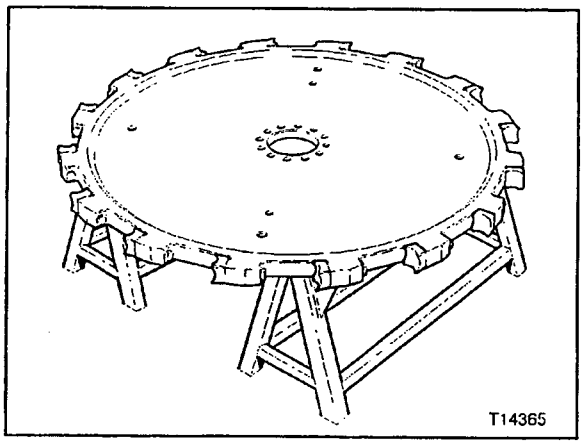
Install the saw motor guard.

11. Check Hydraulic Pressure Setting

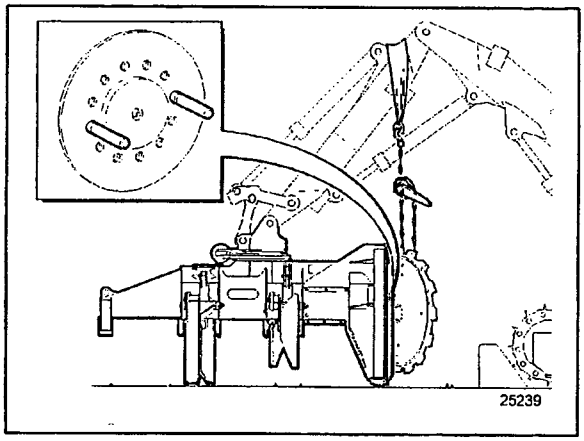
Refer to your Felling Head Workshop Manual for hydraulic pressure settings.

6.3 Unscheduled Maintenance

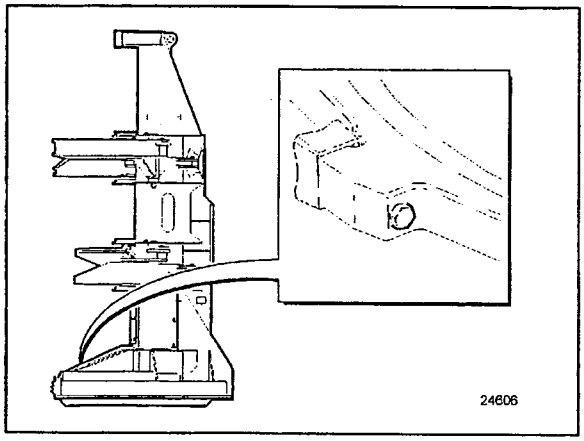
6.3.4 Disc Saw Blade Installation



1. With the disc saw blade on supports, clean the blade mounting surface.
2. Lubricate the bottom surface of the driveshaft with anti-seize compound and install two dowel pins in two driveshaft bolt holes.

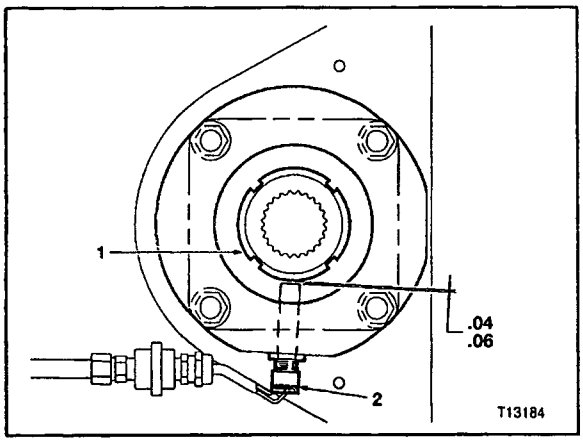


3. Using the chain hoist lift the disc saw blade into position on the driveshaft.



4. The socket head bolts should be lubricated with anti-seize compound before being installed. Position the bottom flange and install the bolts hand tight. Remove the two dowel pins and install the remaining two bolts.
5. Re-install the lower guards.

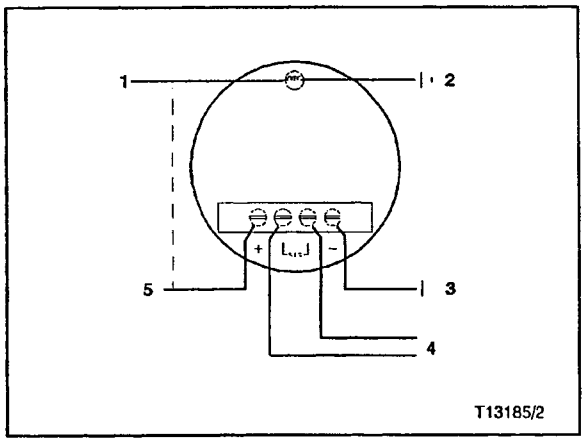
8.2 Saw Speed Tachometer



An optional tachometer kit part number 701538300 is available for monitoring the saw speed. The kit can be purchased from your dealer. Installation and assembly instructions are included in the kit.

The speed sensor is factory installed on the felling head. The gap is set at .04" - .06" (1.0 - 1.5 mm). This is achieved by threading the sensor (2) in until the sensor bottoms against the nut (1), then threading the sensor out 2/3 to one full turn.

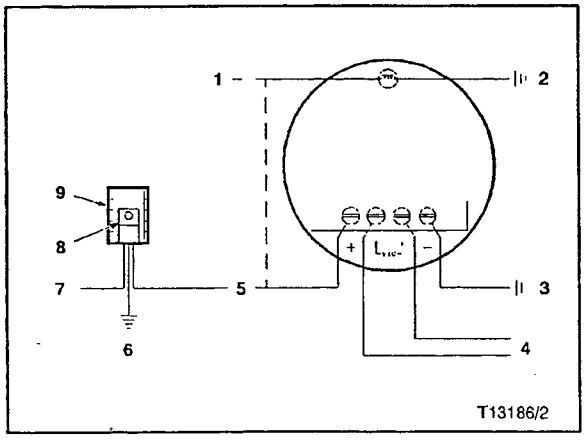
Important!
This adjustment is based on the nut being undamaged or new.



The tachometer requires a 12 volt supply to operate. Included in the kit is a voltage regulator and heat sink for converting the 24 volt supply to 12 volts. The tachometer is calibrated at 4 pulses per revolution.

Typical 12 Volt Supply

1. 12 Volt to Light
2. Ground for Light Circuit
3. Ground for Tachometer Circuit
4. Harness to Speed Sensor
5. 12 Volt Supply



Typical 24 Volt Supply

1. 12 Volt to Light
2. Ground for Light Circuit
3. Ground for Tachometer Circuit
4. Harness to Speed Sensor
5. 12 Volt Supply
6. Ground for Voltage Regulator
7. 24 Volt to Voltage Regulator
8. Voltage Regulator (24V to 12V)
9. Heat Sink

Refer to specifications (Section 10) for applicable saw speed.

11.1 Measurement Conversions

Length

miles	x 1.6093	=km
yards	x 0.9144	=m
feet	x 0.3048	=m
feet	x 30.480	=cm
inches	x 2.540	=cm
inches	x 25.40	=mm
km	x 0.621	=miles
km	x 1093.60	=yards
km	x 3280.90	=feet
m	x 1.094	=yards
m	x 3.281	=feet
m	x 39.37	=inches
cm	x 0.3937	=inches
mm	x 0.03937	=inches

Area

sq.mile	x 2.59	=sq.km
acres	x 0.00405	=sq.km
acres	x 0.4047	=hectares
sq.yards	x 0.8361	=sq.m
sq.feet	x 0.0929	=sq.m
sq.inches	x 6.452	=sq.cm
sq.inches	x 645.2	=sq.mm
sq.km	x 0.3861	=sq.miles
sq.km	x 247.11	=acres
hectares	x 2.471	=acres
sq.m	x 1.196	=sq.yards
sq.m	x 10.764	=sq.feet
sq.cm	x 0.155	=sq.inches
sq.mm	x 0.00155	=sq.inches

Volume

cu.yards	x 0.765	=cu.m
cu.feet	x 0.283	=cu.m
cu.inches	x 16.383	=cu.cm
cu.m	x 1.308	=cu.yards
cu.m	x 35.3145	=cu.feet
cu.cm	x 0.06102	=cu.inches

Liquid

U.S.gallons	x 0.8333	=Imp.gallons
U.S.gallons	x 3.785	=litres
U.S. gallons	x 0.946	=litres
Imp.gallons	x 1.2009	=U.S.gallons
litres	x 0.2642	=U.S.gallons
litres	x 1.057	=U.S.quarts

Weight

kg	x 0.453	=pounds
metric ton	x 1.1023	=short ton
metric ton	x 0.9842	=long ton
pounds	x 2.2046	=kg
short ton	x 0.9072	=metric ton
long ton	x 1.0161	=metric ton

Flow

U.S.gpm	x 3.790	=litres/min
U.S.gpm	x 0.063	=litres/sec
cu.ft./min	x 0.472	=litres/sec
litres/min	x 0.264	=U.S.gpm
litres/sec	x 15.873	=U.S.gpm
litres/sec	x 2.119	=cu.ft./min