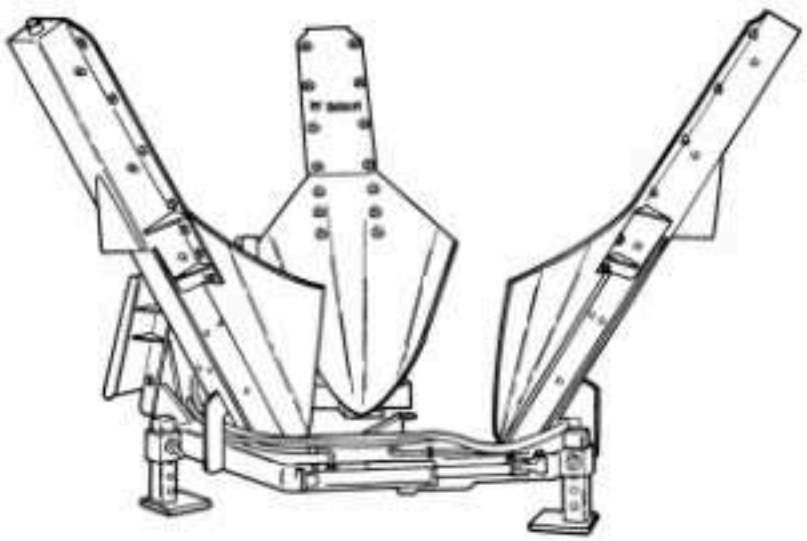
Tree Spade

TS30C	(S/N 973000101 & Above)
TS30C Conv	(S/N 973800101 & Above)
TS30C ACD	(S/N 944611101 & Above)
TS30M	(S/N 973100101 & Above)
TS30M Conv	(S/N 973900101 & Above)
TS30M ACD	(S/N 944711101 & Above)
TS30T	(S/N 973200101 & Above)
TS30T Conv	(S/N 974000101 & Above)
TS30T ACD	(S/N 944811101 & Above)
TS34C	(S/N 973300101 & Above)
TS34C Conv	(S/N 974100101 & Above)
TS34C ACD	(S/N 944911101 & Above)
TS34T	(S/N 973400101 & Above)
TS34T Conv	(S/N 974200101 & Above)
TS34T ACD	(S/N 945011101 & Above)
TS36M	(S/N 973500101 & Above)
TS36M Conv	(S/N 974300101 & Above)
TS36M ACD	(S/N 945111101 & Above)
TS44C	(S/N 973600101 & Above)
TS44C Conv	(S/N 974400101 & Above)
TS44M	(S/N 973700101 & Above)
TS44M Conv	(S/N 974500101 & Above)

Bobcat®

Operation & Maintenance Manual



An IR Ingersoll Rand business

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Printed in U.S.A.

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REFERENCE INFORMATION

Write the correct information for YOUR Tree Spade Attachment in the spaces below. Always use these numbers when referring to your Tree Spade.

Tree Spade Serial Number _____

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

YOUR BOBCAT® DEALER:

ADDRESS:

_____

PHONE:

_____

Bobcat Company
P.O. Box 128
Gwinner, ND 58040-0128

Bobcat Company Europe
J. Huysmanslaan 59
B-1651 LOT
Belgium

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Figure OI-2



Rear stabilizers (Item 1) **[Figure OI-2]** are required when using the Tree Spade on approved Bobcat loaders. The rear stabilizers will allow as much weight as possible to be transferred to the Tree Spade for maximum digging ability.

Rear counter-weights (Not shown) are recommended when using the Tree Spade on approved Bobcat loaders.

NOTE: Rear counterweights are beneficial for pulling the trees out and also for carrying heavier trees or rootballs that are made up of heavier soils.

The warranty is void if this attachment is used on a non-approved carrier. See your Bobcat dealer for an updated list of approved carriers. Also, the use of this attachment on non-approved carriers can cause overloading and lead to tipping.

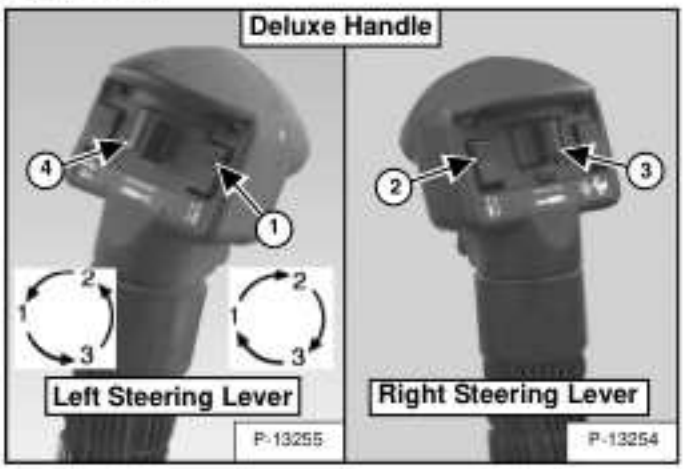
NOTE: When using the non-ACD version: The Tree Spade should not be used with the high flow option activated. The control valve in the Tree Spade will accept a maximum flow of 8 GPM. Any hydraulic flow over 8 GPM is diverted back to the loader through the flow divider in the Tree Spade control valve.

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Loader Controls (Cont'd)

ACD Version

Figure OI-41



When using the ACD version of the Tree Spade, all operations are controlled using the right and left steering levers of the loader **[Figure OI-41]**.

To activate a blade, push the switch (Item 1) **[Figure OI-41]**. Pushing the switch up activates the blade in increments up (blade 1, blade 2, blade 3). Pushing the switch down activates the blade in increments down (blade 3, blade 2, blade 1).

To control the up and down movement of a blade, push the switch (Item 2) **[Figure OI-41]**. To raise the blade, push up on the switch. To lower the blade, push down on the switch.

To open and close the gates, push the switch (Item 3) **[Figure OI-41].** Push the switch to the right to open gates. Push the switch to the left to close gates.

To control the up and down movement of the stabilizer push the switch (Item 4) **[Figure OI-41]**.

NOTE: There are different stabilizer kits available for use on the loader with the Tree Spade. The factory supplied stabilizer kit that uses the rear auxiliaries uses the loader steering lever switch (Item 4) to control stabilizer direction.

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LUBRICATION

Daily Lubrication

Lubricate the following grease fittings every 8-10 hours.

Figure PM-8

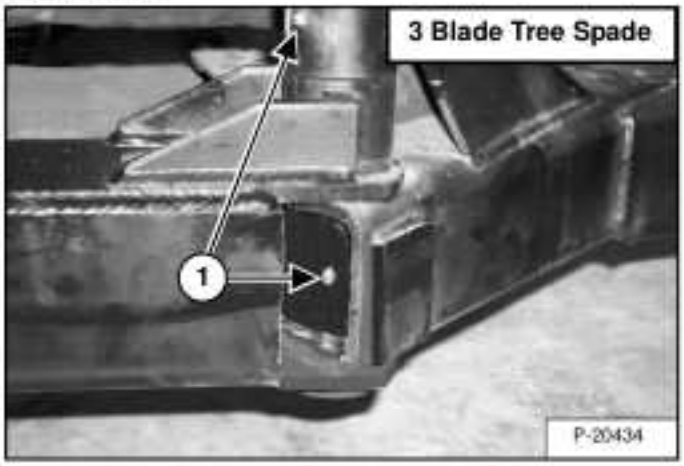
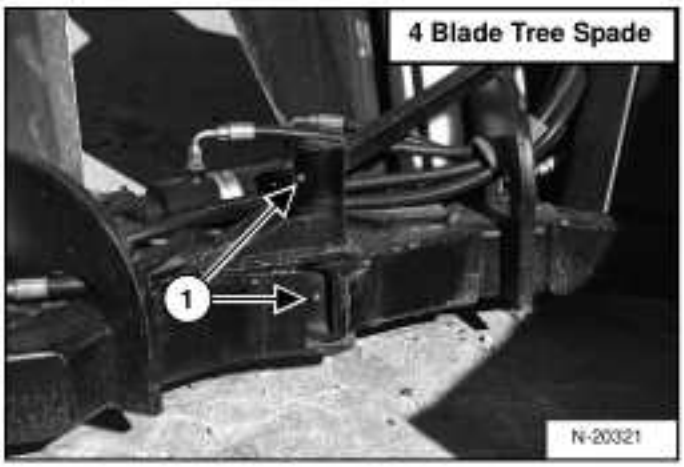


Figure PM-9



Open the gates fully before attempting to grease the Tree Spade. The bottom grease fitting can only be accessed with the gates open.

Grease the gate pivot pin (Item 1) **[Figure PM-8]** & **[Figure PM-9]**. The 4 blade Tree Spade has 2 lubrication points for each of its two gates.

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SAFETY INSTRUCTIONS

Safe Operation Is The Operator's Responsibility

Safety Alert Symbol

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

WARNING

Operator must have instructions before running the machine. Untrained operators can cause injury or death.

W-2001-1285

IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

I-2019-0284

WARNING

Warnings on the machine and in the manuals are for your safety. Failure to obey warnings can cause injury or death.

W-2044-1285

The Bobcat machine and attachment must be in good operating condition before use.

Check all of the items on the Bobcat Service Schedule Decal under the 8-10 hour column or as shown in the Operation & Maintenance Manual.

Safe Operation Needs A Qualified Operator

For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine.

A Qualified Operator Must Do The Following:

Understand the Written Instructions, Rules and Regulations

- The written instructions from Bobcat Company include the Delivery Report, Operation & Maintenance Manual, Operator's Handbook, Safety Manual and machine signs (decals).
- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.

Have Training with Actual Operation

- Operator training must consist of a demonstration and verbal instruction. This training is given by your Bobcat dealer before the product is delivered.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine and attachment safely under all conditions of the work area. Always fasten seat belt before operating.

Know the Work Conditions

- Know the weight of the materials being handled. Avoid exceeding the machine load capacities. Material which is very dense will be heavier than the same volume of less dense material. Reduce the size of load if handling dense material.
- The operator must know any prohibited uses or work areas, for example, he or she needs to know about excessive slopes.
- Know the location of any underground lines. Call local utilities or the TOLL FREE phone number found in the *USE SAFETY RULES* Section of this manual.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, hearing protection, Special Applications Kits or a Front Window Guard are required for some work. See your Bobcat dealer about Bobcat Safety equipment for your machine.

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