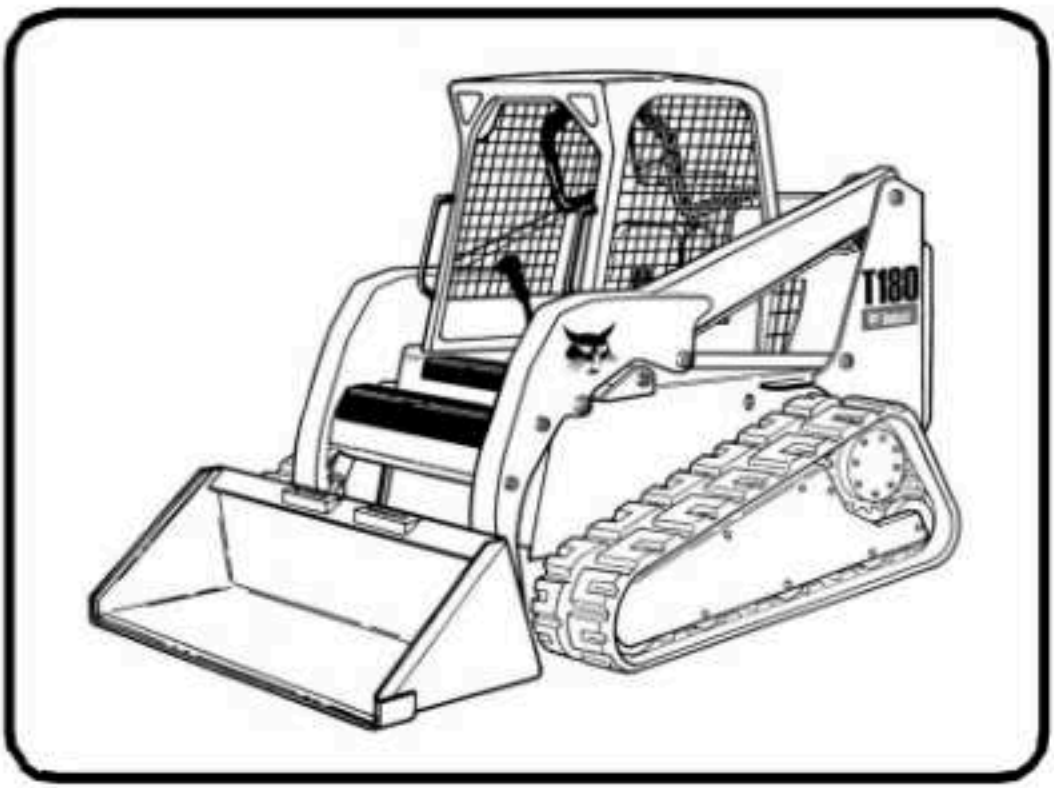
Bobcat®

# Operation & Maintenance Manual
# T180 Compact Track Loader

## S/N A3LL11001 - A3LL36499




**EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)**

6987015 (9-09) Revised (12-09) (8)

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**REFERENCE INFORMATION**

Write the correct information for YOUR Bobcat loader in the spaces below. Always use these numbers when referring to your Bobcat loader.

Loader Serial Number _____

Engine Serial Number _____

_____

NOTES:

_____

_____

_____

_____

_____

YOUR BOBCAT DEALER:

_____

ADDRESS:

_____

PHONE:

_____


Bobcat Company
P.O. Box 128
Gwinner, ND 58040-0128
UNITED STATES OF AMERICA

Doosan Benelux SA
Drève Richelle 167
B-1410 Waterloo
BELGIUM







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# FOREWORD

This Operation & Maintenance Manual was written to give the owner / operator instructions on the safe operation and maintenance of the Bobcat loader. READ AND UNDERSTAND THIS OPERATION & MAINTENANCE MANUAL BEFORE OPERATING YOUR BOBCAT LOADER. If you have any questions, see your Bobcat dealer. This manual may illustrate options and accessories not installed on your loader.

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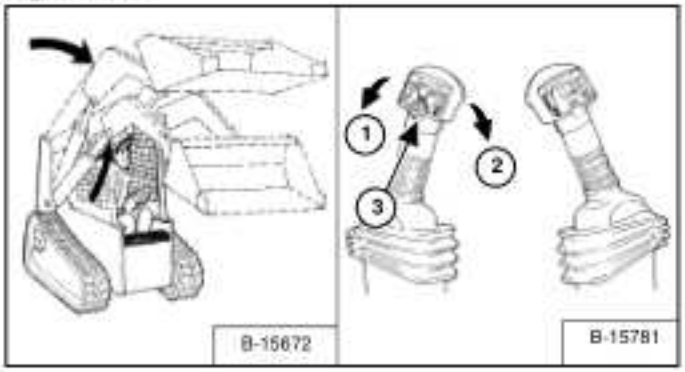
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### Advanced Control System (ACS) In HAND Control Mode

**Figure OI-48**




*Lift Arm Operation - (Left Hand Lever)*

Move the lever outward (Item 1) **[Figure OI-48]** to raise the lift arms.

Move the lever inward (Item 2) **[Figure OI-48]** to lower the lift arms.

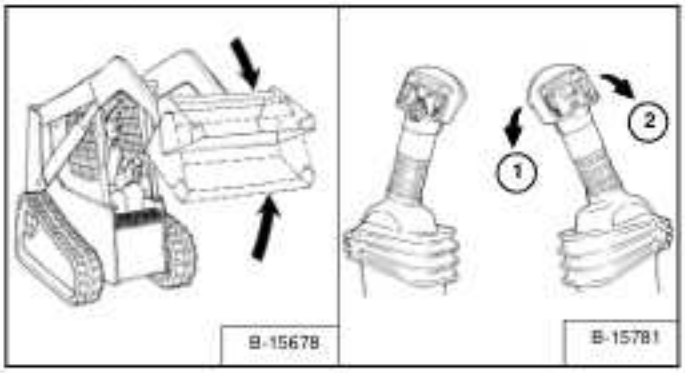
*Lift Arm Float Position - (Left Hand Lever)*

Press and hold the Float button (Item 3) **[Figure OI-48]** while the lever is in neutral. Move the lever to lift arm down position (Item 2) **[Figure OI-48]**, then release the button.

Press Float button (Item 3) **[Figure OI-48]** again or move the lever to lift arm up position to disengage.

Use the float position of the lift arms to level loose material while driving backward.

**Figure OI-49**



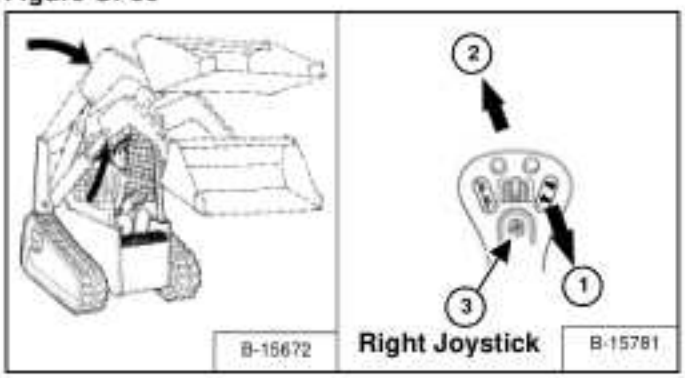

*Tilt Operation - (Right Hand Lever)*

Move the lever inward (Item 1) **[Figure OI-49]** to tilt the bucket backward.

Move the lever outward (Item 2) **[Figure OI-49]** to tilt the bucket forward.

### Selectable Joystick Controls (SJC) In 'ISO' Control Pattern

**Figure OI-50**




*Lift Arm Operation - (Right Hand Joystick)*

Move the joystick backward (Item 1) **[Figure OI-50]** to raise the lift arms.

Move the joystick forward (Item 2) **[Figure OI-50]** to lower the lift arms.

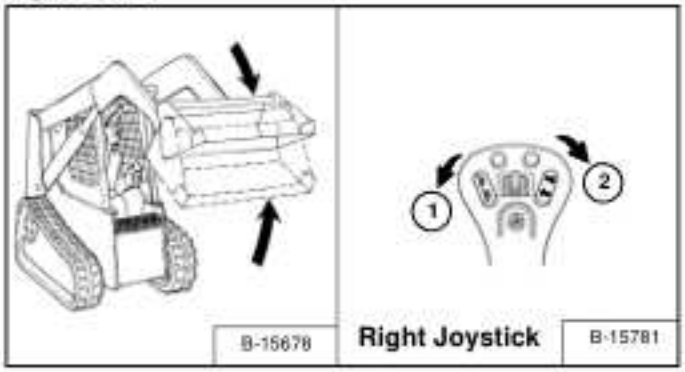
*Lift Arm Float Position - (Right Hand Joystick)*

Press and hold the Float button (Item 3) **[Figure OI-50]** while the joystick is in neutral. Move the joystick to lift arm down position (Item 2) **[Figure OI-50]**, then release the button.

Press Float button (Item 3) again or move the joystick to lift arm up position (Item 1) **[Figure OI-50]** to disengage.

Use the float position of the lift arms to level loose material while driving backward.

**Figure OI-51**




*Tilt Operation - (Right Hand Joystick)*

Move the joystick inward (Item 1) **[Figure OI-51]** to tilt the bucket backward.

Move the joystick outward (Item 2) **[Figure OI-51]** to tilt the bucket forward.



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## LUBRICATING THE LOADER

### Lubrication Locations

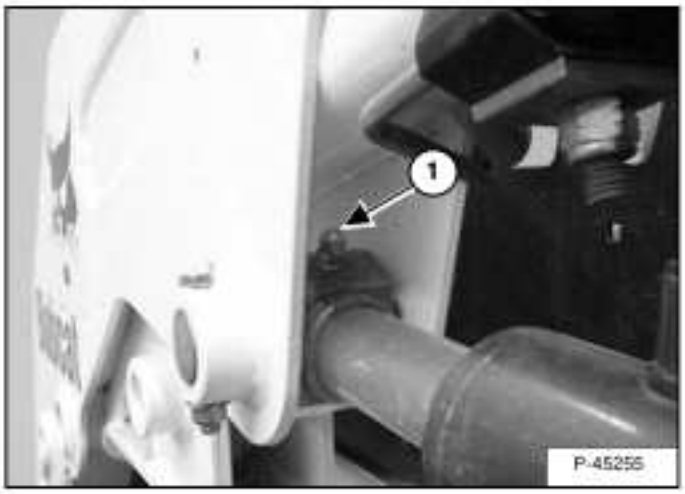
Lubricate the loader as specified for the best performance of the loader. (See SERVICE SCHEDULE on Page PM-7.)

Record the operating hours each time you lubricate the Bobcat loader.

Always use a good quality lithium based multipurpose grease when you lubricate the loader. Apply the lubricant until extra grease shows.

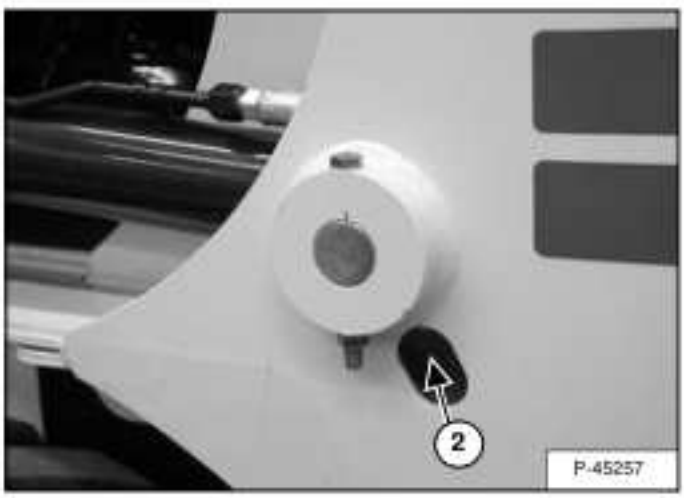
Lubricate the following:

**Figure PM-99**



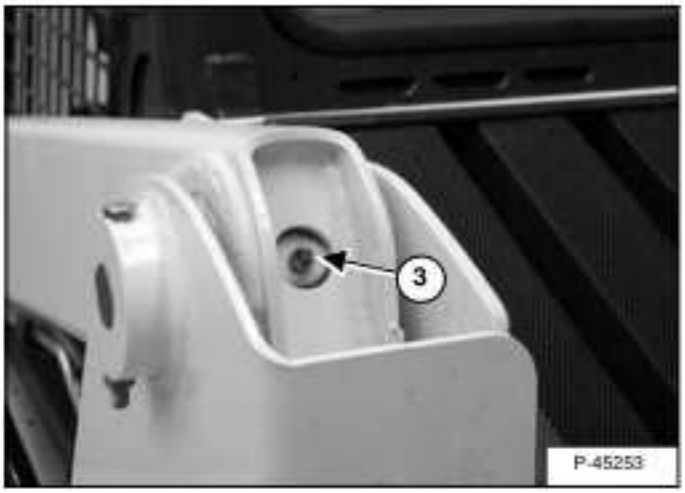

1. Rod End Lift Cylinder (Both Sides) (2) **[Figure PM-99]**.

**Figure PM-100**



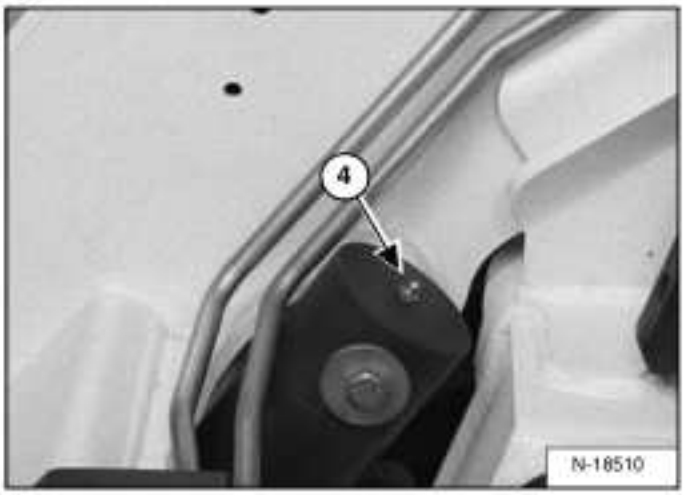

2. Base End Lift Cylinder (Both Sides) (2) **[Figure PM-100]**.

**Figure PM-101**




3. Lift Arm Pivot Pin (Both Sides) (2) **[Figure PM-101]**.

**Figure PM-102**




4. Base End Tilt Cylinder (Both Sides) (2) **[Figure PM-102]**.



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## (T180) LOADER SPECIFICATIONS (CONT'D)

### Controls

| | |
|---|---|
| Vehicle Steering | Direction and speed controlled by two hand operated steering levers *or* optional joystick(s) |
| Loader Hydraulics - Lift and Tilt | Controlled by separate foot pedals *or* optional Advanced Control System (ACS) *or* optional Selectable Joystick Control (SJC) |
| - Front Auxiliary (Standard) | Controlled by electrical switch on Right Hand steering lever or joystick |
| - Rear Auxiliary (Option) | Controlled by electrical switch on Left Hand steering lever or joystick |
| Auxiliary Pressure Release | Pressure relieved through front quick couplers. Push couplers in, hold for 5 seconds. |
| Engine | Hand lever speed control; key-type start switch *or* optional Deluxe Instrumentation Panel and function error shutdown. |
| Starting Aid | Glow Plugs automatically activated as needed by Instrument Panel |
| Service Brake | Two independent hydrostatic systems controlled by two hand operated steering levers *or* optional joystick(s) |
| Secondary Brake | One of the hydrostatic transmissions |
| Parking Brake (Standard) | Spring applied pressure release multi-disk brake activated by manually operated switch on front instrument panel |

### Hydraulic System

| | |
|---|---|
| Pump Type | Engine driven, gear type |
| Pump Capacity - Standard | 16.9 GPM (64.0 L/min.) @ 2850 Engine RPM @ 91% Efficiency |
| High Flow Option | 26.4 GPM (100.0 L/min.) @ 2850 Engine RPM @ 91% Efficiency |
| System Relief at Quick Couplers | 3250 - 3350 PSI (224 - 231 bar) |
| Filter (Hydraulic) | Full flow replaceable, 3-micron synthetic media element |
| Hydraulic Cylinders | Double-acting; tilt cylinders have cushioning feature on dump and rollback |
| Bore Diameter: Lift Cylinder (2) | 2.25 in. (57.1 mm) |
| Tilt Cylinder (2) | 2.75 in. (69.8 mm) |
| Rod Diameter: Lift Cylinder (2) | 1.50 in. (38.1 mm) |
| Tilt Cylinder (2) | 1.375 in. (34.9 mm) |
| Stroke: Lift Cylinder (2) | 27.90 in. (709 mm) |
| Tilt Cylinder (2) | 13.19 in. (335 mm) |
| Control Valve | 3-Spool, open center type with spring detent for lift float and electrically controlled auxiliary spool |
| Fluid Lines | SAE Standard tubelines, hoses and fittings |
| Fluid Type | Bobcat Fluid<br>6903117 - (2.5 Gal.)<br>6903118 - (5 Gal.)<br>6903119 - (55 Gal.) |
| Hydraulic Function Time: | |
| Raise Lift Arms | 3.5 Seconds |
| Lower Lift Arms | 2.3 Seconds |
| Bucket Dump | 2.6 Seconds |
| Bucket Rollback | 2.0 Seconds |



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**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

**DANGER**

**The signal word DANGER on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.**

D-1002-1107

**WARNING**

**The signal word WARNING on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

W-2044-1107

The Bobcat loader 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.
- Operator Training Courses are available from your Bobcat dealer in English and Spanish. They provide information for safe and efficient equipment operation. Safety videos are also available.
- Service Safety Training Courses are available from your Bobcat dealer. They provide information for safe and correct service procedures.

*Know the Work Conditions*

- Know the weight of the materials being handled. Avoid exceeding the Rated Operating Capacity (ROC) of the machine. Material which is very dense will be heavier than the same volume of less dense material. Reduce the size of the 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 *Before Operation* Section of this manual.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, respiratory equipment, hearing protection or Special Applications Kits are required for some work. See your Bobcat dealer about Bobcat Safety Equipment for your model.

SI SSL-1008



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