



# **Operation & Maintenance Manual**



## **Telescopic Handler**

(TL30.70DB) S/N B4AY11001 & Above (TL30.70HB) S/N B4AZ11001 & Above



## OPERATOR SAFETY WARNINGS

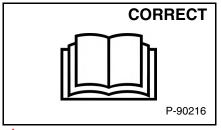


Operator must have instructions before operating the machine. before operating the Untrained operators the machine. can cause injury or death.

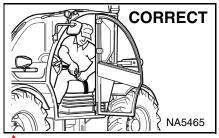
W-2001-0502



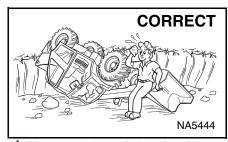
Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.



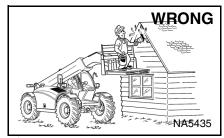
Never operate without instructions. machine signs Operation & Maintenance Manual.



Always fasten seat belt snugly. Always keep your feet and arms inside the cab.



Never use telescopic handler without operator cab with ROPS and FOPS approval.

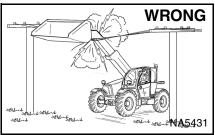


Never carry riders.

Use only an approved work platform.

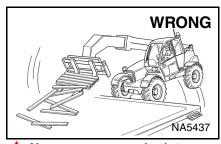


Do not use machine in atmosphere with explosive dust, explosive gas, or where exhaust can contact flammable material.



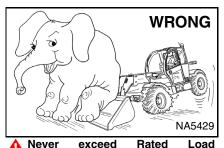
Check for overhead underground power lines before operating.





Always carry bucket attachments as low as possible.

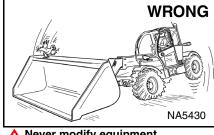
Do not travel or turn with boom up. Load, unload, and turn on flat level ground.



Capacity. Read and understand the Load Capacity Charts.



running or with boom raised. To park, put transmission in neutral, engage parking brake, and put attachment flat on the ground.



Never modify equipment.

Use only attachments approved by Bobcat Company for this model telescopic handler.

#### SAFETY EQUIPMENT

The Bobcat® telescopic handler must be equipped with safety items necessary for each job. Ask your Bobcat dealer for information on the availability and safe use of attachments and accessories.

- SEAT BELT: Check belt fasteners and check for damaged webbing or buckle.
- OPERATOR CAB (ROPS and FOPS): It must be on the telescopic handler with all fasteners tight. Never operate without right window.

  OPERATOR'S HANDBOOK: Must be in the cab.
- SAFETY SIGNS (DECALS): Replace if damaged. SAFETY TREADS: Replace if damaged. GRAB HANDLES: Replace if damaged.

- BOOM STOP (if equipped): Replace if damaged.
  PARKING BRAKE: Check for function.
  WINDOWS AND MIRRORS: Clean and check for broken glass or mirrors. Replace if damaged.



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REFERENCE INFORMATION
Write the correct information for YOUR Bobcat telescopic handler in the spaces below. Always use these numbers when referring to your Bobcat telescopic handler.
when referring to your Bobcat telescopic handler.  Telescopic Handler Serial Number
when referring to your Bobcat telescopic handler.  Telescopic Handler Serial Number
when referring to your Bobcat telescopic handler.  Telescopic Handler Serial Number  Engine Serial Number
when referring to your Bobcat telescopic handler.  Telescopic Handler Serial Number  Engine Serial Number
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when referring to your Bobcat telescopic handler.  Telescopic Handler Serial Number Engine Serial Number  NOTES:

**CE**\*

Bobcat Company P.O. Box 128 Gwinner, ND 58040-0128 UNITED STATES OF AMERICA Doosan Bobcat EMEA s.r.o. U Kodetky 1810 26312 Dobris Czech Republic

<sup>\*</sup> If EC-equipped machine



#### **FOREWORD**

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

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/ MICO	 

<sup>\*</sup> If EC-equipped machine



## **Contents of EC Declaration of Conformity**

This information is provided in the operators manual to comply with clause 1.7.4.2(c) of Annex I of Machinery Directive 2006/42/EC.

The official EC Declaration of Conformity is supplied in a separate document.

Manufacturer

**Bobcat** 

Bobcat France Route de Nantes B.P. 71 44160 Pontchateau FRANCE

**Technical Documentation** 

Homologation Manager Doosan Bobcat EMEA s.r.o. U Kodetky 1810 26312 Dobříš Czech Republic Directive 2000/14/EC: Noise Emission in the Environment by Equipment For Use Outdoors

**Notified Body** 

Laboratoire National d'Essais (LNE) France

Notified Body Number: 0071

EC Certificate No. 2000-14/P175416/2

Conformity Assessment Procedure(s)

2000/14/EC, Annex VI

Sound Power Levels [Lw(A)]

Measured Sound Power 104 dBA
Guaranteed Sound Power 106 dBA

**Description of Equipment** 

Type of Equipment: Telescopic Handler

Model Name: TL30.70DB Model Code: B4AY

Engine Manufacturer: PERKINS Engine Model: 1104D-44TA

Engine Power: 74.5 kW @ 2200 RPM

Equipment conforms to CE Directive(s) Listed Below

2006/42/EC: Machinery Directive

2014/30/EU: Electromagnetic Compatibility Directive

#### **Declaration of Conformance**

This equipment conforms to the requirements specified in all the EC Directives listed in this declaration.

#### Effective From:

1 December 2018

<sup>\*</sup> If EC-equipped machine

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2000/14/EC, Annex VI

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EC Certificate No.

Conformity Assessment Procedure(s)

Sound Power Levels [Lw(A)]

Measured Sound Power 104 dBA
Guaranteed Sound Power 106 dBA

**Description of Equipment** 

Type of Equipment: Telescopic Handler

Model Name: TL30.70HB Model Code: B4AZ

Engine Manufacturer: PERKINS Engine Model: 1104D-44TA

Engine Power: 74.5 kW @ 2200 RPM

Equipment conforms to CE Directive(s) Listed Below

2006/42/EC: Machinery Directive

2014/30/EU: Electromagnetic Compatibility Directive

**Declaration of Conformance** 

This equipment conforms to the requirements specified in all the EC Directives listed in this declaration.

**Effective From:** 

1 December 2018

<sup>\*</sup> If EC-equipped machine

#### **DECLARATION OF CONFORMITY (CONT'D)\***

**All Models** 

# Declaration of conformity with Article 14 of Regulation (EU) No 517/2014 of the European Parliament and of the Council

We Bobcat France S.A.S. with VAT number FR63332690908 declare under our sole responsibility that when placing on the market pre-charged equipment, which we manufacture in the Union, the hydrofluorocarbons contained in that equipment are accounted for within the quota system referred to in Chapter IV of Regulation (EU) No 517/2014 as:

$\square$ A. we hold authorisation(s) issued in accordance with Article 18(2) of Regulation (EU) No 517/2014
and registered in the registry referred to in Article 17 of that Regulation, at the time of release for free
circulation to use the quota of a producer or importer of hydrofluorocarbons subject to Article 15 of
Regulation (EU) No 517/2014 that cover(s) the quantity of hydrofluorocarbons contained in the equipment.
☐ B. [for importers of equipment only] the hydrofluorocarbons contained in the equipment have been
placed on the market in the Union, subsequently exported and charged into the equipment outside the Union,
and the undertaking that placed the hydrofluorocarbons on the market made a declaration stating that the
quantity of hydrofluorocarbons has been or will be reported as placed on the market in the Union and that
it has not been and will not be reported as direct supply for export in the meaning of Article 15(2)(c) of
Regulation (EU) No 517/2014 pursuant to Article 19 of Regulation (EU) No 517/2014 and Section 5C of
the Annex to Commission Implementing Regulation (EU) No 1191/2014 (2).

C. [for equipment manufactured in the Union only] the hydrofluorocarbons charged into the equipment were placed on the market by a producer or importer of hydrofluorocarbons subject to Article 15 of Regulation (EU) No 517/2014.

Patrice Caulier

P. Caulier

30th January, 2017

<sup>\*</sup> If EC-equipped machine

#### **BOBCAT COMPANY IS ISO 9001 CERTIFIED**







**ISO 9001** is an international standard that specifies requirements for a quality management system that controls the processes and procedures which we use to design, develop, manufacture, and distribute Bobcat products.

British Standards Institute (**BSI**) is the Certified Registrar Bobcat Company chose to assess the company's compliance with the ISO 9001 at Bobcat's manufacturing facilities in Gwinner, North Dakota (U.S.A.), Pontchâteau (France), and the Bobcat corporate offices (Gwinner, Bismarck, and West Fargo) in North Dakota. **TÜV Rheinland** is the Certified Registrar Bobcat Company chose to assess the company's compliance with the ISO 9001 at Bobcat manufacturing facility in Dobris (Czech Republic). Only certified assessors, like BSI and TÜV Rheinland, can grant registrations.

ISO 9001 means that as a company we say what we do and do what we say. In other words, we have established procedures and policies, and we provide evidence that the procedures and policies are followed.

### **REGULAR MAINTENANCE ITEMS**

#### **Parts**

	1	
ENGINE OIL FILTER (6 Pack) 960698	850	BATTERY 7223985
FUEL FILTER, PRIMARY 7251998		HYDRAULIC OIL RETURN FILTER 7225338
FUEL FILTER, SECONDARY 6911907		HYDRAULIC FILL / BREATHER CAP 6727475
AIR FILTER, Outer 6910725		OPERATOR CAB AIR FILTER 7228497
AIR FILTER, Inner 6910726		

NOTE: Always verify Part Numbers with your Bobcat dealer.

#### **REGULAR MAINTENANCE ITEMS (CONT'D)**

#### **Lubricants, Fuel And Fluids**

The lubricants and fuels described below are those used in the factory and apply to operating conditions in European temperate climate areas. Please consult Bobcat for requirements under other weather conditions.

Prior to refill or drain any equipment of your Bobcat product, read and understand the according preventive maintenance pages. (See PREVENTIVE MAINTENANCE on Page 143.)

ENGINE SYSTEMS				
Machine Components	Fluids And Lubricants	T° Range	Packaging**	Part Number
Engine	- Bobcat Engine Power SAE 10W30 CI4 / ACEA E7	-35°C / +30°C	A, B, C, D	6987789*
	- Bobcat Engine Power SAE 15W40 CI4 / ACEA E7	-20°C / +40°C	A, B, C, D	6987790
Cooling Circuit	- Bobcat EG Coolant Concentrated	-36°C	A, B, C, D	6987803
Cooling Circuit	- Bobcat EG Coolant Premixed	-36°C	A, B, C, D	6987804*
Fuel Tank	- High-quality diesel fuel that meets EN590 (See FUEL SYSTEM on Page 159.)	-	-	*

HYDRAULIC / HYDROSTATIC SYSTEMS				
Machine Components	Fluids And Lubricants	T° Range	Packaging**	Part Number
Hydraulic Fluid Tank	- Bobcat Superior SH Hydraulic / Hydrostatic	-35°C / +50°C	A, B, C, D	6987791*

TRANSMISSION SYSTEMS				
Machine Components	Fluids And Lubricants	T° Range	Packaging**	Part Number
Differential &	- Bobcat Axle / Transmission Oil SAE 85W90 LS / API GL-5	-20°C / +40°C	A, B, C, D	6987805
Axles	- Bobcat Axle / Transmission Oil ISO 100 / API GL-4	-20°C / +40°C	A, B, C	6987794*

MECHANICAL SYSTEMS				
Machine Components	Fluids And Lubricants	Dropping Point	Packaging**	Part Number
	- Bobcat Multi-Purpose Grease	From 260°C	E	6987888*
All Mechanical Systems	- Bobcat Supreme HD Grease	From 280°C	E	6987889
Cyclonic	- Bobcat Extreme HP Grease	From 260°C	E	6987890

- (\*) Factory-Filled Fluids And Lubricants
- (\*\*) Packaging Available:
- A = 5 L Can
- B = 25 L Container
- C = 209 L Drum
- D = 1000 L Tank
- E = 400 g Tube

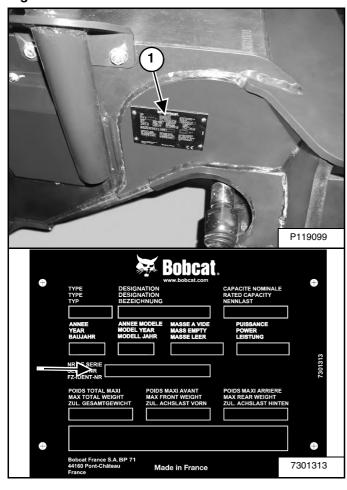
#### **SERIAL NUMBER LOCATION**

Always use the serial number of the telescopic handler when requesting service information or when ordering parts.

If any serial number plate is damaged, contact your Bobcat dealer.

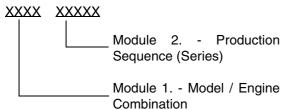
#### **Telescopic Handler Serial Number**

Figure 1



The telescopic handler serial number plate (Item 1) is located on the right side of the chassis in front [Figure 1].

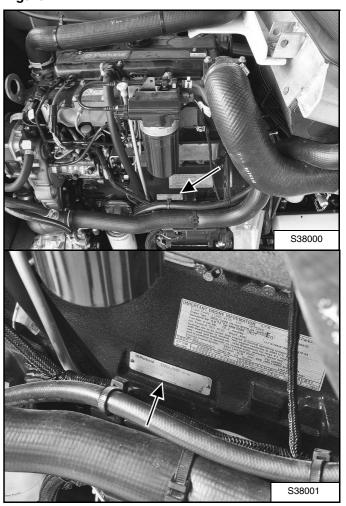
Explanation of telescopic handler serial number:



- 1. The four digit Model / Engine Combination Module number identifies the model number and engine combination.
- 2. The five digit Production Sequence Number identifies the order in which the telescopic handler is produced.

#### **Engine Serial Number**

Figure 2



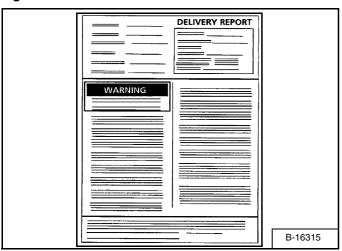
The engine serial number can be found on the engine serial number plate **[Figure 2]** in front of you when opening the engine cover. Always use the full number when ordering replacement parts.

#### **Other Serial Numbers**

Other components can also have serial numbers and an identification plate. Always use these serial numbers when ordering parts.

#### **DELIVERY REPORT**

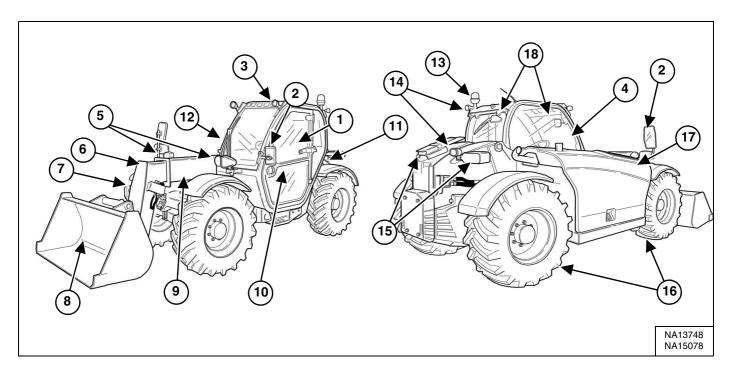
Figure 3



The delivery report **[Figure 3]** contains a list of items that must be explained or shown to the owner or operator by the dealer when the Bobcat telescopic handler is delivered.

The delivery report must be reviewed and signed by the owner or operator and the dealer.

#### **BOBCAT TELESCOPIC HANDLER IDENTIFICATION**



ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Operation & Maintenance Manual and Operator's Handbook	10	Seat Belt
2	Mirrors	11	Boom Stop [A]
3	Work Lights	12	Operator Cab (ROPS and FOPS) [C]
4	Load Capacity Charts	13	Rotating Beacon
5	Front Lights	14	Rear Work Light
6	Telescoping Boom	15	Tail Lights and Direction Signals
7	Boom Head	16	Tyres [D]
8	Attachment Carrier [B]	17	Engine Cover
9	Boom	18	Rear / Front Interior Mirror

- [A] Optional or Field Accessory. (Not Standard Equipment).
- [B] Attachments Several different attachments are available for the Bobcat telescopic handler.
- [C] ROPS, FOPS Roll-Over Protective Structure, per ISO 3471, and Falling-Object Protective Structure per ISO 3449, Level II.
- [D] TYRES Standard tyres are shown. Several different tyre styles and sizes are available for the Bobcat telescopic handler.

#### FEATURES, ACCESSORIES AND ATTACHMENTS

#### Standard Items

Model TL30.70(D)(H)B Bobcat telescopic handler is equipped with the following standard items:

- 12 V power outlet
- 4 equal-size drive wheels with tyres
- Auxiliary hydraulic line on boom
- Adjustable steering column
- Back-up alarm
- Cab heater
- Counterweight
- Cushion lift (up and down)
- Front and rear washer / wipers
- Front hitch
- Gear pump
- Glass door
- Hydrostatic transmission, 35 km/h (21.7 mph)
- Interior mirror
- · Left and right side mirrors
- Longitudinal Load Moment Controller (LLMC) system with override feature
- · Manual locking of attachments
- Mudguards
- Quick-tach attachment carrier
- Rear document storage net
- Retract cushion
- Road lights
- Rotating beacon
- Semi-automatic realignment of the wheels
- Smart Handling System (SHS)
- · Speed management
- Standard steering wheel
- Suspension seat
- Turbo-charged engine, 74,5 kW (100 hp)
- Turn signals
- Work lights on roof (2 front + 1 rear)
- · Work light on frame
- Wrench for transmission disengagement

#### **Options And Accessories**

Below is a list of some equipment available from your Bobcat dealer as Dealer and / or Factory Installed Accessories and Factory Installed Options. See your Bobcat dealer for other available options, accessories and attachments.

- Air suspension seat
- Basic tow hitch
- · Blue work lights
- Boom stop\*
- Boom suspension\*\*
- Cab premium
- Cold start\*\*
- Cyclonic cleaner on air intake
- Cab with HVAC
- Deluxe steering wheel
- Double mirrors on right side\*
- Dual FNR
- Dust protection
- Electric line on boom
- Extinguisher
- Fan inverter
- Front and roof window guard
- Hydraulic hook for trailer\*\*
- Hydraulic locking of attachments, J-tach
- Hydraulic locking of attachments, Mani-tach
- Hydraulic locking of attachments, quick-tach
- Hydraulic trailer brake valve
- J-tach attachment carrier
- Keyless start
- Keypad panel
- Lockable fuel cap
- Mani-tach attachment carrier
- Radio ready (with speakers and antenna)
- Rear flat mirror
- Rear hitch electrical plug (7-Pin)
- Rear hydraulic lines\*\*
- Road lights LED
- Roll sun visor
- Roof window wiper\*
- Rotating beacon LED
- · Solid rear document compartment
- Special colour cab
- Special colour frame, boom and rims
- Support for registration plate
- Tow devices for trailers
- Travel direction lever
- Wheel wedge
- · Work lights on boom
- Work lights on boom LED
- Work light on frame LED
- Work lights on roof LED (2 front + 1 rear)

#### Specifications subject to change without notice

- \* In standard items for EC-equipped machine
- \*\* Not allowed for EC-equipped machines

#### **Available Tyres**

#### Standard tyres:

CAMSO 405/70-20 16 PR TM R4

#### Optional tyres:

- CAMSO 405/70-20 14 PR TM R4
- DUNLOP 405/70R20 168A2 152J MPT SPT9
- MICHELIN 400/70R20 149A8/149B IND TL BIBLOAD
- MICHELIN 400/70R20 149A8/149B IND TL XMCL
- ALLIANCE 400/70R20 149A8 A 580
- MICHELIN 400/80-24 162A8 IND TL POWER CL
- CAMSO 400/80-24 20 PR TM R4
- DUNLOP 405/70R24 168A2 152J MPT SPT9
- MICHELIN 400/70 R24 152A8/152B IND TL XMCL
- ALLIANCE 405/70R24 152A8 A 580

See your Bobcat dealer for more information on optional tyres and the corresponding steering angle adjustment.

#### **Available Rims**

#### Standard rims:

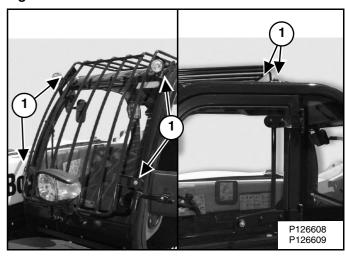
RIM 13\*20" -3

#### Optional rims:

RIM 13\*24" -3

#### **Front And Roof Window Guard**

#### Figure 4



Available for special applications to restrict material from entering cab openings [Figure 4].

The front and roof window guard is mounted to the cab at six mounting points (Item 1) [Figure 4].

Do not use an unapproved front and roof window guard. A front and roof window guard not manufactured by Bobcat cannot be approved.

See your Bobcat dealer for availability.

# Front And Roof Window Guard Inspection And Maintenance

The front and roof window guard must be regularly inspected and maintained. Inspect the screen and the four mounting points (Item 1) [Figure 4] for damage. Replace parts as necessary.

#### **Attachments**

These attachments are approved for use on the Bobcat telescopic handler.

Do not use unapproved attachments. Attachments not manufactured by Bobcat cannot be approved.

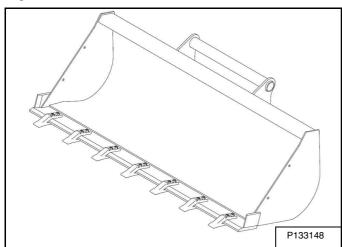
The versatile Bobcat telescopic handler quickly turns into a multi-job machine with a tight-fit attachment hook-up from bucket to grapple to pallet fork and a variety of other attachments.

See your Bobcat dealer for more details on these and other attachments and field accessories.

Increase the versatility of your Bobcat telescopic handler with a variety of bucket styles and sizes.

#### **Buckets**

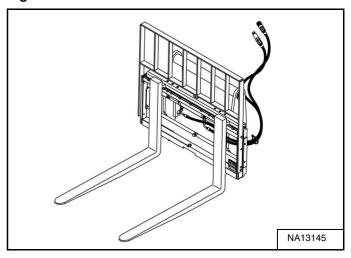
Figure 5



- 780 L (28 ft³) digging bucket teeth optional
- 1500 L (53 ft³), 2,1 m (83 in) wide light material bucket
   bolt-on edge optional
- 2000 L (71 ft³), 2,3 m (90.5 in) wide light material bucket bolt-on edge optional

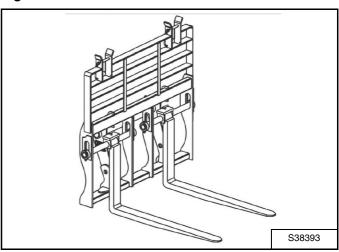
#### Pallet Forks

#### Figure 6



Side shift carriage 200 mm (7.9 in) - Type III

#### Figure 7

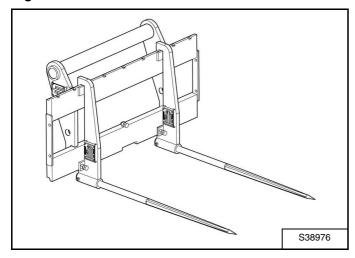


- Rigid pallet forks FEM III with guard
- Rigid pallet forks FEM III without guard
- Floating pallet forks 1,12 m (44 in), quick-tach
- Floating pallet forks 1,12 m (44 in), mani-tach
- Floating pallet forks 1,44 m (57 in), quick-tach
- Floating pallet forks 1,44 m (57 in), mani-tach
- Floating pallet forks Q-fit J-tach

### Attachments (Cont'd)

Bale Spikes

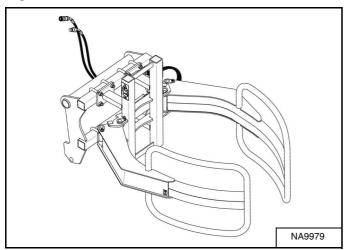
Figure 8



Round bale spike

Bale Handlers With Tubes

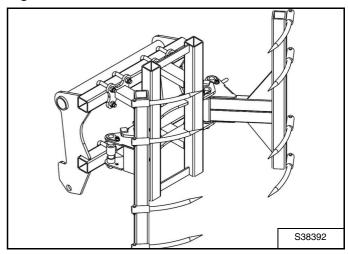
Figure 9



- Bale handler with tubes 1,3 m (51 in)
- Bale handler with tubes 1,6 m (63 in)
- Bale handler with tubes 1,8 m (71 in)

Bale Handlers With Tines

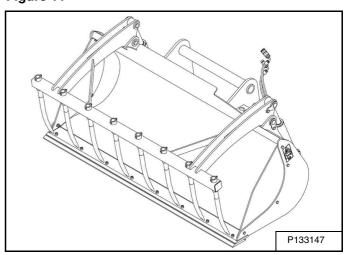
Figure 10



- Bale handler with tines 1 m (39 in)
- Bale handler with tines 1,4 m (55 in)

Grapple Buckets

Figure 11

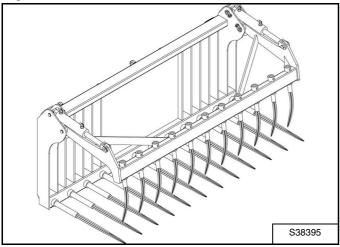


- Bucket Grapple, welded, 2,2 m (86.6 in)
- Bucket Grapple, forged, 2,2 m (86.6 in)

### Attachments (Cont'd)

Fork Grapple

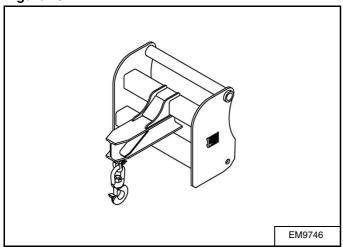
Figure 12



• Manure fork grapple 2,1 m (83 in)

Jibs

Figure 13



- Jib 0,7 m / 4300 kg (28 in / 9480 lb), quick-tach
- Jib 0,7 m / 4300 kg (28 in / 9480 lb), mani-tach

## **SAFETY AND TRAINING RESOURCES**

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#### **SAFETY INSTRUCTIONS**

#### **Before Operation**

Carefully follow the operating and maintenance instructions in this manual.

Safety decals must be in good condition. If replacing a part with a safety decal or if a safety decal is damaged or worn it must be replaced on the machine.

The Bobcat Telescopic Handler is highly manoeuvrable and compact. It is rugged and useful under a wide variety of conditions. This presents an operator with hazards associated with off motorway, rough terrain applications, common with telescopic handler usage.

The telescopic handler has an internal combustion engine with resultant heat and exhaust. All exhaust gases can kill or cause illness so use the telescopic handler with adequate ventilation.

The dealer explains the capabilities and restrictions of the telescopic handler and attachment for each application. The dealer demonstrates the safe operation according to Bobcat instructional materials, which are also available to operators. The dealer can also identify unsafe modifications or use of unapproved attachments. Any modifications that affects the operator visibility or the machines specifications has to be approved by Bobcat Company. The attachments and buckets are designed for a Rated Load Capacity. They are designed for secure fastening to the telescopic handler. The user must check with the dealer, or Bobcat literature, to determine safe loads of materials of specified densities for the machine attachment combination.

The following publications and training materials provide information on the safe use and maintenance of the Bobcat machine and attachments:

- The Delivery Report is used to assure that complete instructions have been given to the new owner and that the machine and attachment is in safe operating condition.
- The Operation & Maintenance Manual delivered with the machine or attachment gives operating information as well as routine maintenance and service procedures. It is a part of the machine and can be stored in a container provided on the machine. Replacement Operation & Maintenance Manuals can be ordered from your Bobcat dealer.
- Machine signs (decals) instruct on the safe operation and care of your Bobcat machine or attachment. The signs and their locations are shown in the Operation & Maintenance Manual. Replacement signs are available from your Bobcat dealer.

- Load Capacity Charts for each attachment are provided in the operator area. These charts indicate the Rated Load Capacity for each attachment at specified boom heights and extensions. Replacement or additional charts for new attachments are available from your Bobcat dealer.
- An Operator's Handbook is fastened to the operator cab of the telescopic handler. Its brief instructions are convenient to the operator. See your Bobcat dealer for more information on translated versions.

The dealer and owner / operator review the recommended uses of the product when delivered. If the owner / operator will be using the machine for a different application(s) he or she must ask the dealer for recommendations on the new use.

#### **Telescopic Handler Approved Applications**

The telescopic handler is designed for the following specific approved applications.

- · Handling and stacking loads.
- Towing a trailer.
- Work with a bucket and other approved attachments.

Do not use the telescopic handler for applications not described in the Operation & Maintenance Manual delivered with the machine or attachment.

Any application that can cause falling objects or penetration in the operator's enclosure is prohibited.

#### SAFETY INSTRUCTIONS (CONT'D)

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 operating the machine. Untrained operators can cause injury or death.

W-2001-0502

## **IMPORTANT**

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

I-2019-0284

# **A** 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 telescopic handler 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 and machine signs (decals).
- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. For driving on public roads, the machine must be equipped as stipulated by the local regulations authorising operation on public roads in your specific country. Regulations may identify a hazard such as a utility line.
- For operating the machine, some countries require an operator license. Check the regulations at your location.

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 or structures 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 Rated Load Capacity of the machine (as indicated on the Load Capacity Charts). 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 and prohibited weather conditions like lightning weathers.
- Know the location of any underground lines.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, respiratory equipment, hearing protection or Front Window Guard are required for some work. See your Bobcat dealer about Bobcat Safety Equipment.
- Know the maximum weight capacity of the roads and working areas. Never exceed the maximum weight capacity allowed, especially when travelling on a suspended bridge or using an elevator.

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#### SAFETY INSTRUCTIONS (CONT'D)

#### Safe Operation Needs A Qualified Operator (Cont'd)

Where overhead power lines are present in the operating area, ensure sufficient clearance between the nearest of these lines and any part of the machine.

VOLTAGE	MINIMUM DISTANCE
up to 50 kV	3 m (10 ft)
beyond 50 kV	5 m (16.5 ft)

The operator must survey his / her field of vision when operating the telescopic handler. Adjust mirrors to obtain the best visibility. Clean mirrors every day and more often when necessary. Immediately replace any broken or damaged mirrors. If a suspended load or the resulting boom geometry blocks the vision of the operator alternative carrying means must be considered.

The operator must know the wind speed. Do not use the telescopic handler with wind speeds over 12,5 m/s (28 mph).

#### **Avoid Silica Dust**



Cutting or drilling concrete containing sand or rock containing quartz may result in exposure to silica dust. Use a respirator, water spray or other means to control dust.

#### **Dismantling And Disposal**

On the completion of its useful life, the machine and its parts shall be disposed of in an environmental friendly manner. Please contact your local dealer. Parts of the machine can be remanufactured like the engine depending on its age and condition, or recycled like metals, plastics, rubbers and glasses. Respect the environment and dispose of waste properly. Worn or damaged parts shall not be left in the environment. Oils, brake fluid, cooling refrigerants, batteries and cells shall be disposed of in a proper manner through your local dealer or recycling centre.

#### **FIRE PREVENTION**



#### Maintenance

The machine and some attachments have components that are at high temperatures under normal operating conditions. The primary source of high temperatures is the engine and exhaust system. The electrical system, if damaged or incorrectly maintained, can be a source of arcs or sparks.

Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard.

The operator's area, engine compartment and engine cooling system must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.

All fuels, most lubricants and some coolants mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

#### Operation

Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.

#### **Electrical**



Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or fraved.

Battery gas can explode and cause serious injury. Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting. Do not jump start or charge a frozen or damaged battery. Keep any open flames or sparks away from batteries. Do not smoke in battery charging area.

#### FIRE PREVENTION (CONT'D)

#### **Hydraulic System**

Check hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.

Always clean fluid spills. Do not use petrol or diesel fuel for cleaning parts. Use commercial non-flammable solvents.

### **Fuelling**



Stop the engine and let it cool before adding fuel. No smoking! Do not refuel a machine near open flames or sparks. Fill the fuel tank outdoors.

Ultra Low Sulfur Diesel (ULSD) poses a greater static ignition hazard than earlier diesel formulations with higher Sulfur content. Avoid death or serious injury from fire or explosion. Consult with your fuel or fuel system supplier to ensure the delivery system is in compliance with fuelling standards for proper grounding and bonding practices.

#### **Starting**

Do not use ether or starting fluids on any engine that has glow plugs. These starting aids can cause explosion and injure you or bystanders.

Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting.

#### **Welding And Grinding**

Always clean the machine and attachment, disconnect the battery, and disconnect the wiring from the Bobcat controllers before welding. Cover rubber hoses, battery and all other flammable parts. Keep a fire extinguisher near the machine when welding.

Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.

Dust generated from repairing non-metallic parts such as hoods, fenders or covers can be flammable or explosive. Repair such components in a well ventilated area away from open flames or sparks.

#### **Fire Extinguishers**

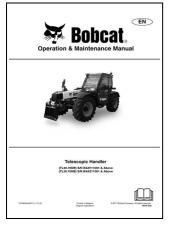


Know where fire extinguishers and first aid kits are located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

#### **PUBLICATIONS AND TRAINING RESOURCES**

The following publications are also available for your Bobcat telescopic handler. You can order them from your Bobcat dealer.

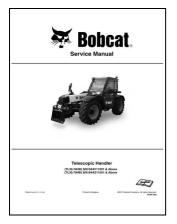
For the latest information on Bobcat products and the Bobcat Company, visit our website at **Bobcat.eu**.



TL30.70(D)(H)B
OPERATION &
MAINTENANCE MANUAL

7319659enGB

Complete instructions on the correct operation and the routine maintenance of the Bobcat telescopic handler.



TL30.70(D)(H)B SERVICE MANUAL

7319658enUS

Complete maintenance instructions for your Bobcat telescopic handler.



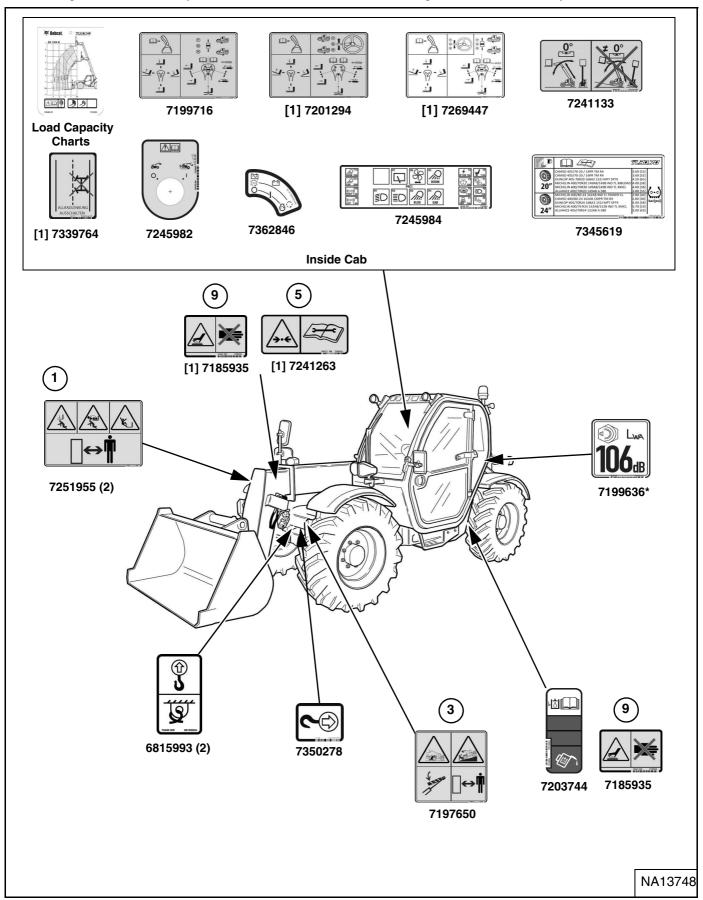
TL30.70(D)(H)B OPERATOR'S HANDBOOK

7282527enGB

Gives basic operation instructions and safety warnings.

#### **MACHINE SIGNS (DECALS)**

Follow the instructions on all the Machine Signs (Decals) that are on the telescopic handler. Replace any damaged machine signs and be sure they are in the correct locations. Machine signs are available from your Bobcat dealer.



[1] Optional or Field Accessory. (Not Standard Equipment)

<sup>\*</sup> If EC-equipped machine

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