



Bobcat®

Operation & Maintenance Manual



TL38.70HF

Telescopic Handler

(TL38.70) S/N AVDV15000 & Above
(TL38.70X) S/N AHT415000 & Above



OPERATOR SAFETY WARNINGS




WARNING


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


W-2001-0502

CORRECT




P-90216



 **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.** See machine signs (decals), Operation & Maintenance Manual.


CORRECT




NA5465

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


CORRECT





NA5444

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


WRONG




NA5435

 **Never carry riders.**
 **Use only an approved work platform.**

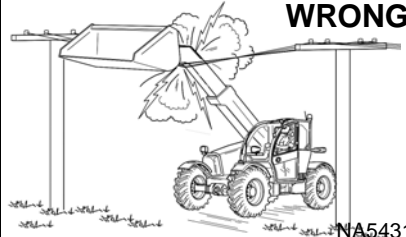
WRONG





NA5438

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

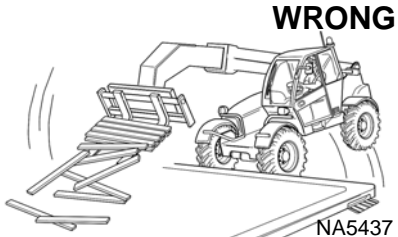
WRONG






NA5431

 **Check for overhead or underground power lines before operating.**
 **Keep boom, attachment, and load a minimum of 3m (10 ft.) away from electrical power lines.**

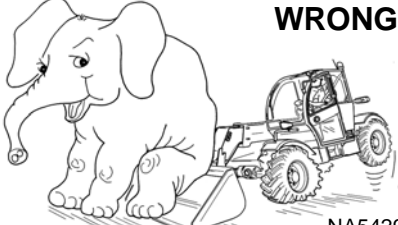
WRONG





NA5437

 **Always carry bucket or attachments as low as possible.**
 **Do not travel or turn with boom up.**
 **Load, unload, and turn on flat level ground.**


WRONG





NA5429

 **Never exceed Rated Load Capacity.**
 **Read and understand the Load Capacity Charts.**

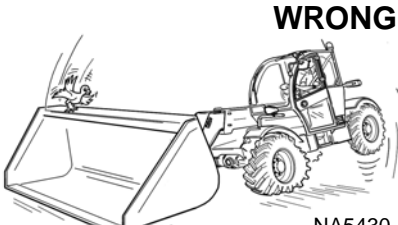
WRONG



NA5426

 **Never exit the machine with engine running or with boom raised.**
 **To park, put transmission in neutral, engage parking brake, and put attachment flat on the ground.**

WRONG



NA5430

 **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.

1. **SEAT BELT:** Check belt fasteners and check for damaged webbing or buckle.
2. **OPERATOR CAB (ROPS and FOPS):** It must be on the telescopic handler with all fasteners tight. Never operate without right window.
3. **OPERATOR'S HANDBOOK:** Must be in the cab.
4. **SAFETY SIGNS (DECALS):** Replace if damaged.
5. **SAFETY TREADS:** Replace if damaged.
6. **GRAB HANDLES:** Replace if damaged.
7. **BOOM STOP (if equipped):** Replace if damaged.
8. **PARKING BRAKE:** Check for function.
9. **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.

Telescopic Handler 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 Bobcat EMEA s.r.o.
U Kodetky 1810
26312 Dobris
Czech Republic



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FOREWORD

This Operation & Maintenance Manual was written to give the owner / operator instructions on the safe operation & 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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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's 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

	ENGINE OIL FILTER (6 Pack) 960698		BATTERY 7159404
	FUEL FILTER, PRIMARY 7316190		HYDRAULIC OIL RETURN FILTER 7012477
	FUEL FILTER, SECONDARY 7316189		HYDROSTATIC FILTER 7012478
	AIR FILTER, Outer 6910725		HYDRAULIC FILL / BREATHER CAP 6727475
	AIR FILTER, Inner 6910726		OPERATOR CAB AIR FILTER 7146967

NOTE: Always verify Part Numbers with your Bobcat dealer.

REGULAR MAINTENANCE ITEMS (CONT'D)

Fluids, Lubricants And Fuel

The fluids, lubricants and fuel described below are those used in the factory and apply to operating conditions in European temperate climate areas. Please see your Bobcat dealer for requirements in other climate areas.

Read and understand the preventive maintenance required before adding or replacing any fluids or lubricants. See "PREVENTIVE MAINTENANCE" on page 139.

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
	- 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 155.)	-	-	*

HYDRAULIC / HYDROSTATIC SYSTEMS				
Machine Components	Fluids And Lubricants	T° Range	Packaging**	Part Number
Hydraulic Oil 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 & Axles	- Bobcat Axle / Transmission Oil SAE 85W90 LS / API GL-5	-20°C/+40°C	A, B, C, D	6987805
	- 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
All Mechanical Systems	- Bobcat Multi-Purpose Grease	From 260°C	E	6987888*
	- Bobcat Supreme HD Grease	From 280°C	E	6987889
	- 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

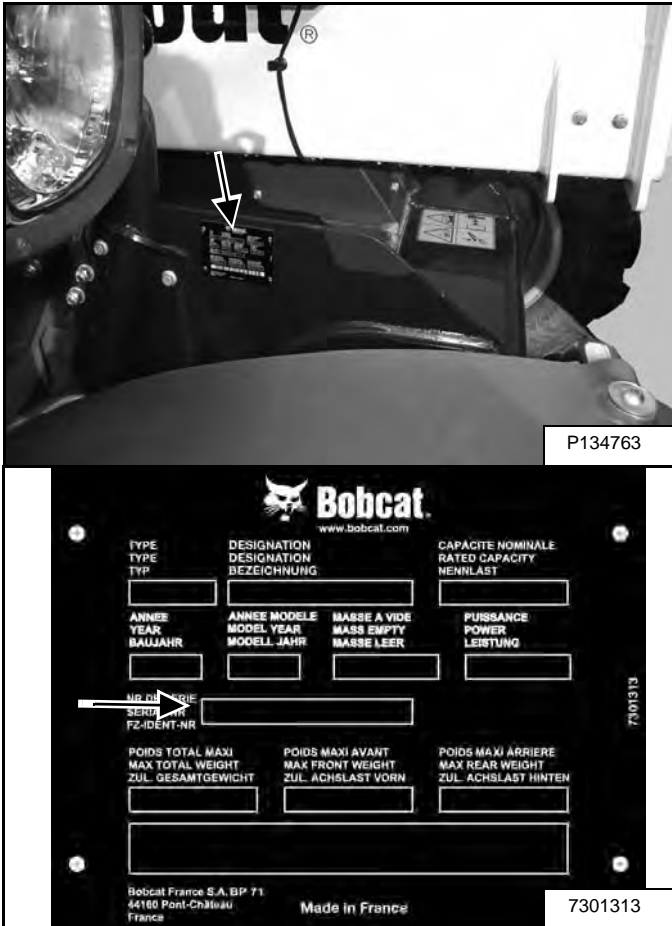
SERIAL NUMBER LOCATION

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.

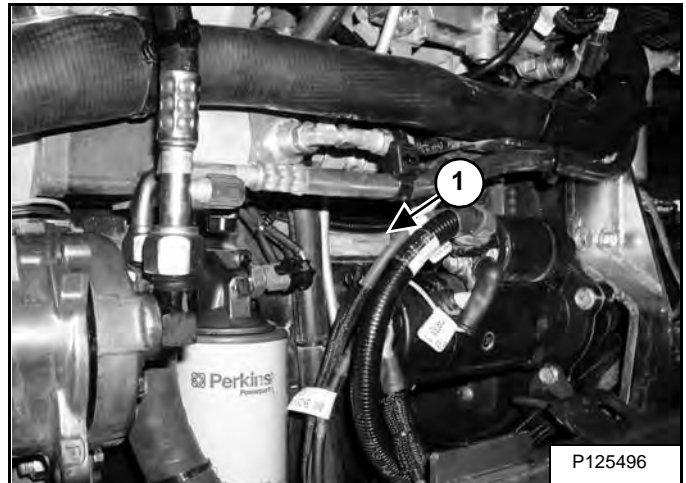
Telescopic Handler Serial Number

Figure 1



Engine Serial Number

Figure 2



The engine serial number can be found on the engine serial number plate (Item 1) [Figure 2] in front of you when opening the engine cover. Always use the full number when ordering replacement parts.

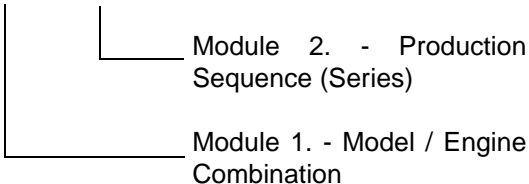
Other Serial Numbers

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

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

Explanation of telescopic handler serial number:

XXXX XXXXXX



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.

DELIVERY REPORT

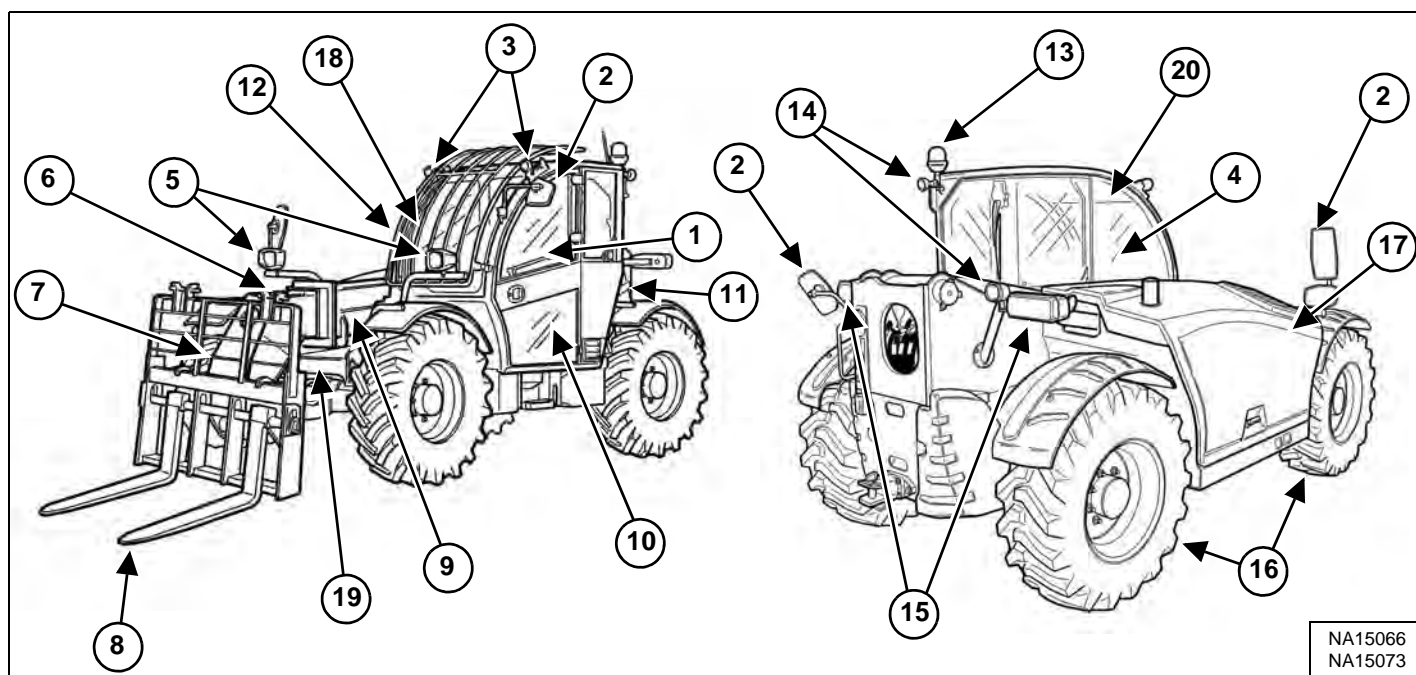
Figure 3

The diagram shows a form titled "DELIVERY REPORT". The form is divided into several sections. At the top right, the title "DELIVERY REPORT" is printed. Below the title, there are several horizontal lines representing text input fields. On the left side, there is a section with a dark header labeled "WARNING" in white text, followed by several horizontal lines. The right side of the form is filled with many horizontal lines, representing a list of items or a detailed report. At the bottom right corner of the form, there is a small box containing the text "B-16315".

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	11	Boom Stop [A]
2	Mirrors	12	Operator Cab (ROPS and FOPS) [C]
3	Work Lights	13	Rotating Beacon
4	Load Capacity Charts	14	Rear Work Light
5	Front Lights [E]	15	Tail Lights and Direction Signals
6	Telescoping Boom	16	Tyres [D]
7	Boom Head	17	Engine Cover
8	Pallet Fork Attachment [B]	18	Front Window Guard [A]
9	Boom	19	Carrier Locking Bar Holder
10	Seat Belt	20	Sight Level Gauge [A]

[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.

[E] FRONT LIGHTS - Front lights are available in left or right hand drive version. The correct lights must be installed depending on the country regulations in which the machine is used.

FEATURES, ACCESSORIES AND ATTACHMENTS

Standard Items

Model TL38.70(X) Bobcat telescopic handlers are equipped with the following standard items:

- 12 V power outlet
- 4 equal-size drive wheels with CAMSO 405/70-20 PR16 TM R4 tyres
- Back-up alarm
- Cab heater
- Carrier locking bar holder
- Cushion lift (up and down)
- Cushion retract
- Fixed steering column
- Forward / Neutral / Reverse button on joystick
- Front and rear washer / wipers
- Gear pump, 100 L/min (26.4 gpm)
- Glass door
- Hydrostatic transmission, 30 km/h (18.6 mph) (TL38.70)
- Hydrostatic transmission, 40 km/h (24.9 mph) (TL38.70X)
- Interior mirror
- Longitudinal Load Moment Controller (LLMC) System with switch to override this function
- LS piston pump, 190L/min (50.2 gpm)
- Manual locking of attachments, quicktach
- Mudguards
- Quicktach attachment carrier
- Road lights
- Rotating beacon
- Seat sensor
- Semi-automatic realignment of the wheels
- Smart Handling System (SHS)
- Speed indicator
- Speed Management
- Standard steering wheel
- Suspension seat
- Turbo-charged engine, 96,5kW (130hp)
- Turn signals
- Work lights on roof (2 front + 1 rear)
- Work light on frame

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.

- Adjustable Hitch for trailer
- Adjustable steering column
- Air suspension seat
- Arm rest
- Attachment Control Device
- Attachment Control Device, without connectors
- Automatic boom suspension
- Block heater / frost plug (for cold start)
- Blue work lights
- Basic tow hitch

- Boom stop
- Cab air conditioning
- Catalytic purifier muffler
- Cold start
- Cyclonic cleaner on air intake
- Deluxe cab
- Deluxe cab, with HVAC
- Deluxe steering wheel
- Double mirrors on right side
- Dual FNR
- Dust Protection
- Extinguisher
- Fan inverter
- Front window guard
- Hydraulic Hook for trailer
- Hydraulic locking of attachments, J-tach
- Hydraulic locking of attachments, Mani-tach
- Hydraulic locking of attachments, quicktach
- Hydraulic trailer brake valve
- J-tach attachment carrier
- Keyless start
- Keypad panel
- Lockable fuel cap
- Mani-tach attachment carrier
- Manual locking of attachments, Mani-tach
- Outside toolbox
- Protective zinc coating
- PVC seat suspension
- Radio predisposition (with speakers and antenna)
- Rear flat mirror
- Rear hitch electrical plug (7-Pin)
- Rear hydraulic lines
- Road lights, left hand drive
- Road lights, left hand drive LED
- Road lights, right hand drive LED
- Roll sun visor
- Roof window wiper
- Rotating beacon LED
- Sight level gauge
- Solid rear document compartment
- Spark arrester
- 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

FEATURES, ACCESSORIES AND ATTACHMENTS (CONT'D)

Available Tyres

Standard tyres:

- CAMSO 405/70-20 14PR TM R4

Optional tyres:

- CAMSO 405/70-20 16PR TM R4
- DUNLOP 405/70R20 168A2/152J MPT SPT9
- CAMSO 400/80-24 20PR TM R4
- DUNLOP 405/70R24 168A2/152J MPT SPT9
- MICHELIN 400/80-24 162A8 IND TL POWER CL
- MICHELIN 460/70-24 159A8/159B IND TL XMCL
- MICHELIN 500/70-24 164A8/164B IND TL XMCL
- ALLIANCE 460/70R24 159A8 A 580
- NOKIAN 460/65R24 156A8/151D TRI STEEL TL

Available Rims

Standard rims:

- RIM 13*20" + 12.5

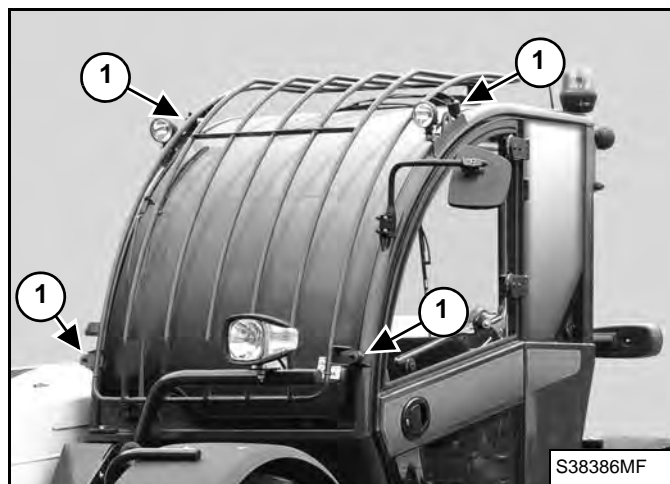
Optional rims:

- RIM 13*24" + 12.5
- RIM 15*24" + 12.5

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

Front Window Guard

Figure 4



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

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

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

See your Bobcat dealer for availability.

Front Window Guard Inspection And Maintenance

The front 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.

FEATURES, ACCESSORIES AND ATTACHMENTS (CONT'D)

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.

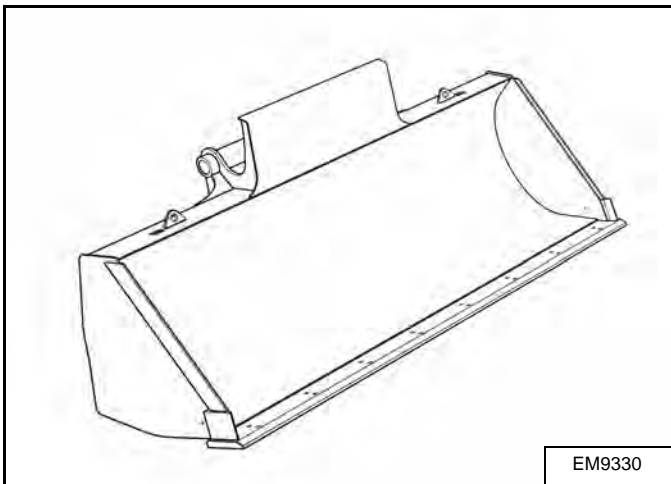
The versatile Bobcat telescopic handler quickly turns into a multi-job machine with a tight-fit attachment hook-up from bucket to grapple to pallet fork and a variety of other attachments.

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.

Digging Buckets

Figure 5



800 L (28.3 ft³) digging bucket - quicktach

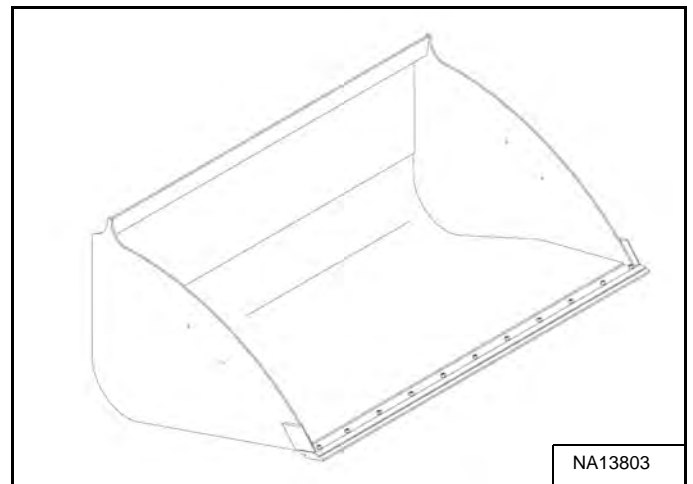
800 L (28.3 ft³) digging bucket - Mani-tach

800 L (28.3 ft³) digging bucket with teeth - quicktach

800 L (28.3 ft³) digging bucket with teeth - Mani-tach

Light Material Buckets

Figure 6

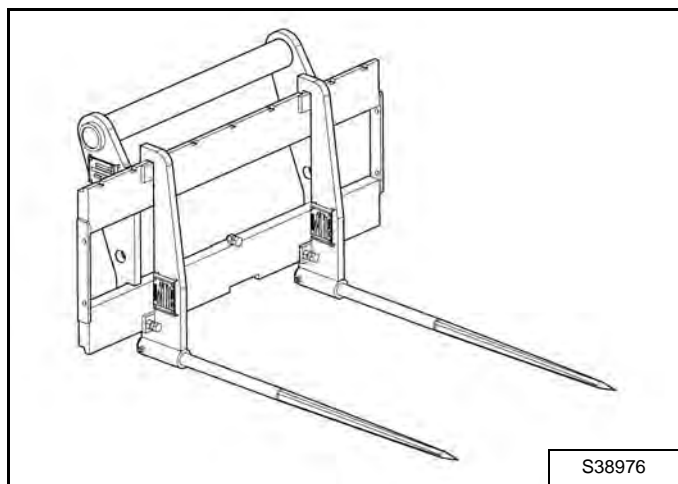


- Light Material Bucket, 2300 mm, 2000 L (70.6 ft³), optional bolt-on edge
- Light Material Bucket, 2450 mm, 2000 L (70.6 ft³), optional bolt-on edge
- Light Material Bucket, 2450 mm, 2500 L (88.3 ft³), optional bolt-on edge
- Light Material Bucket, 2450 mm, 3000 L (105.9 ft³), optional bolt-on edge

FEATURES, ACCESSORIES AND ATTACHMENTS (CONT'D)

Bale Spike

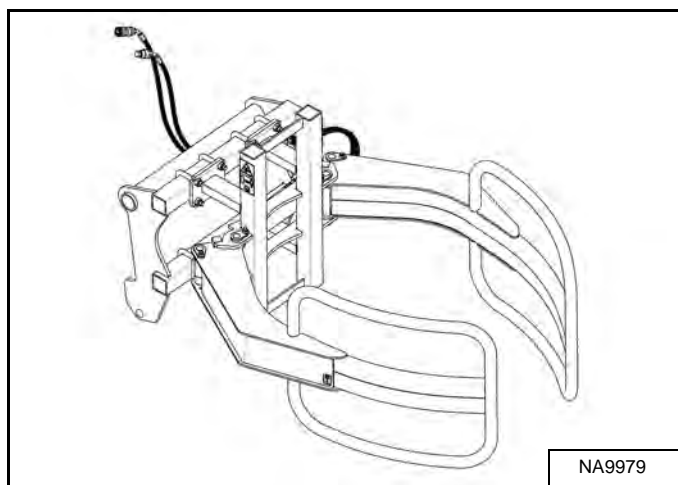
Figure 7



Round bale spike - type III

Bale Handlers With Tubes

Figure 8



Bale handler with tubes 1,3 m (51 in) - quicktach

Bale handler with tubes 1,3 m (51 in) - Mani-tach

Bale handler with tubes 1,6 m (63 in) - quicktach

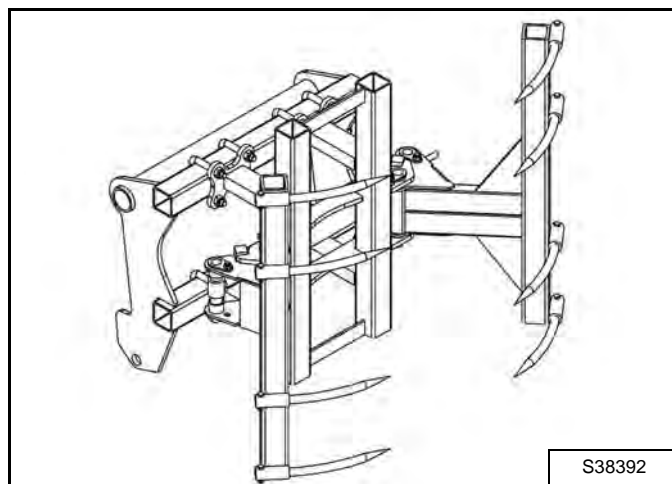
Bale handler with tubes 1,6 m (63 in) - Mani-tach

Bale handler with tubes 1,8 m (71 in) - quicktach

Bale handler with tubes 1,8 m (71 in)- Mani-tach

Bale Handlers With Tines

Figure 9



Bale handler with tines 1,0 m (39 in) - quicktach

Bale handler with tines 1,0 m (39 in) - Mani-tach

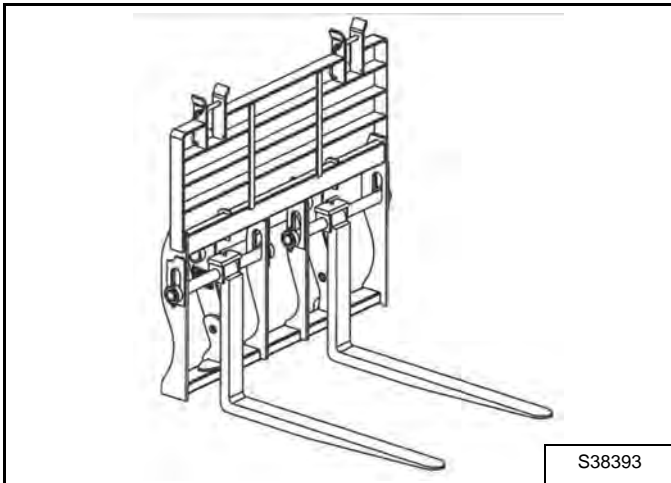
Bale handler with tines 1,4 m (55 in) - quicktach

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

FEATURES, ACCESSORIES AND ATTACHMENTS (CONT'D)

Pallet Forks

Figure 10



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

Rigid pallet forks FEM III - quicktach

Rigid pallet forks FEM III - Mani-tach

Floating pallet forks 1,12 m (44 in) - quicktach

Floating pallet forks 1,12 m (44 in) - Mani-tach

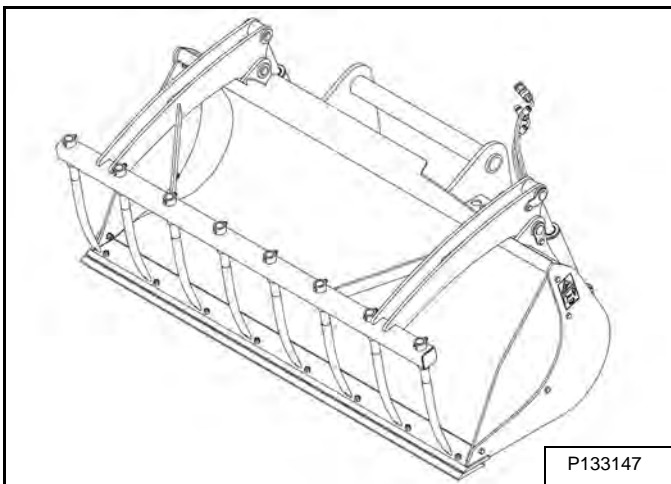
Floating pallet forks 1,44 m (57 in) - quicktach

Floating pallet forks 1,44 m (57 in) - Mani-tach

Floating pallet forks Q-fit - J-tach

Bucket Grapples

Figure 11

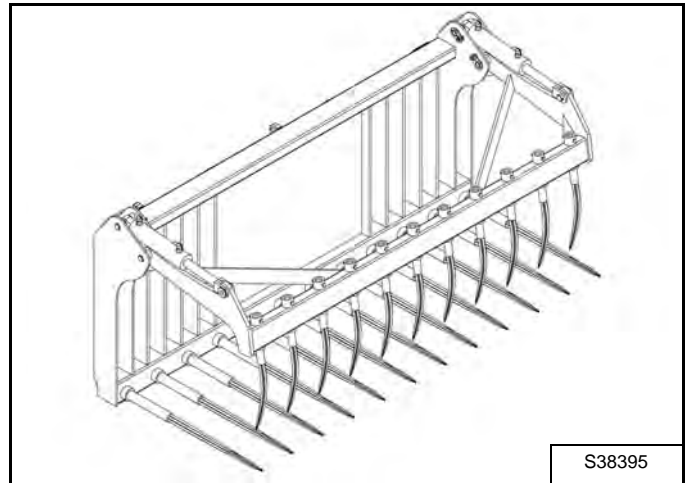


Bucket Grapple, welded, 2450 mm (96.5 in) - quicktach

Bucket Grapple, forged, 2450 mm (96.5 in) - quicktach

Fork Grapples

Figure 12

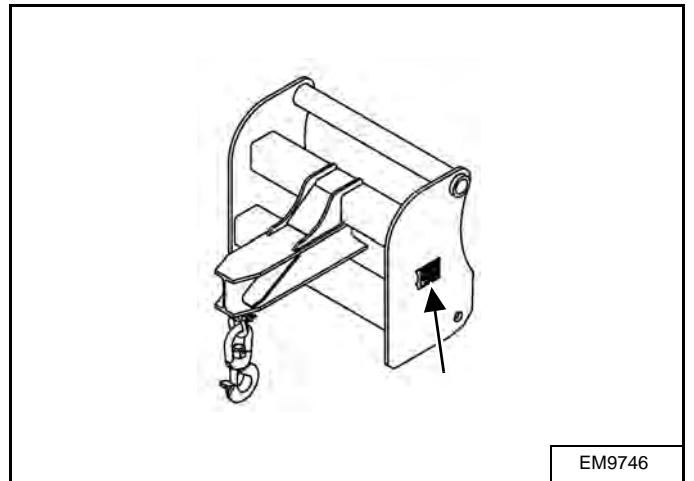


Manure fork grapple 2,30 m (90 in)- quicktach

Manure fork grapple 2,30 m (90 in) - Mani-tach

Jibs

Figure 13



Jib 0,7 m / 4300 kg (28 in / 9480 lb) - quicktach

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



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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



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 frayed.

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.

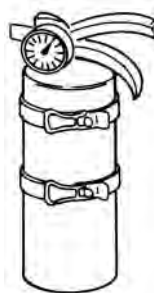
Welding And Grinding

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.



TL38.70(X) OPERATION & MAINTENANCE MANUAL

7311030enGB

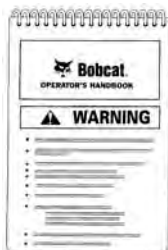
Complete instructions on the correct operation and the routine maintenance of the Bobcat telescopic handler.



TL38.70(X) SERVICE MANUAL

7311032enUS

Complete maintenance instructions for your Bobcat telescopic handler.



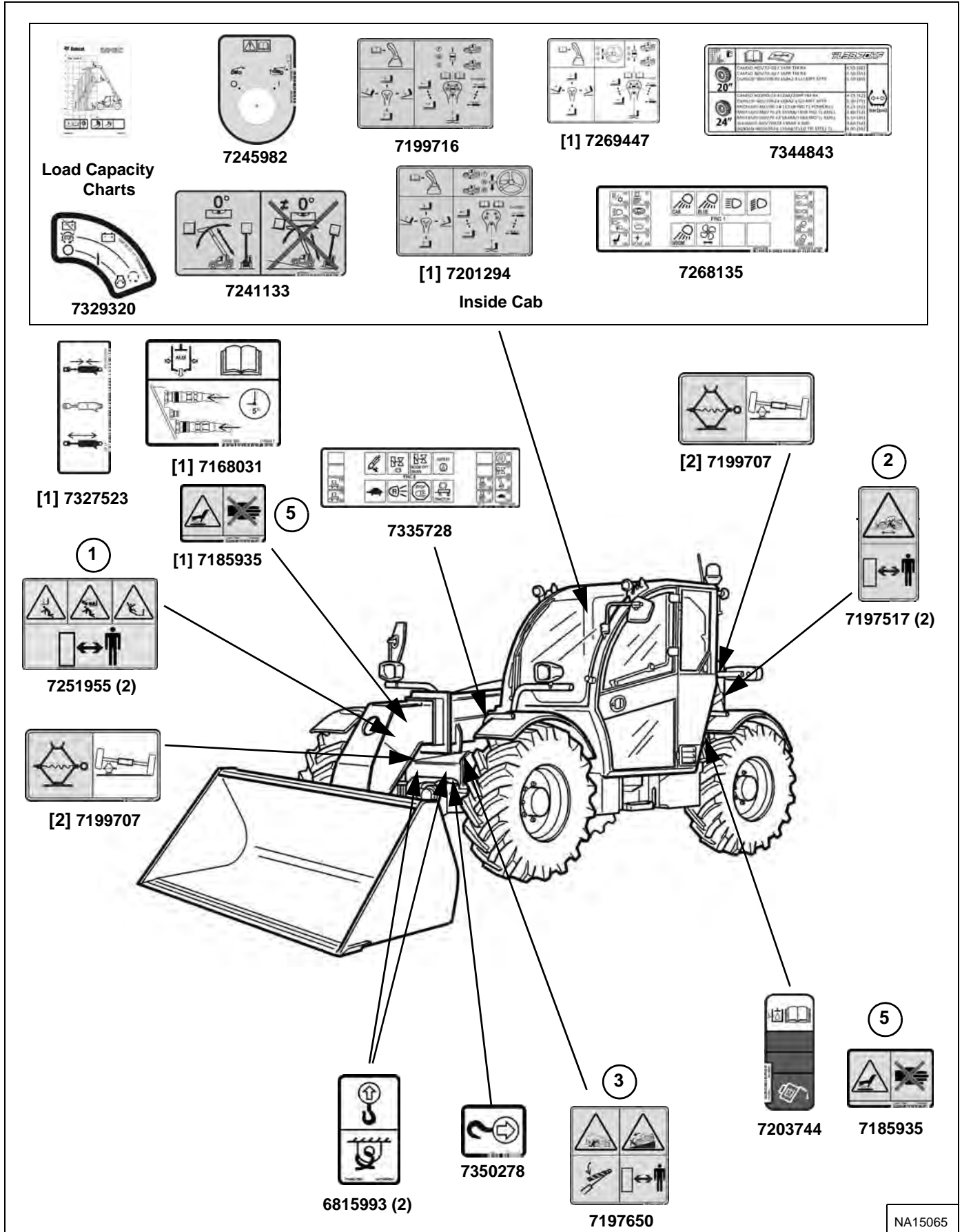
TL35.70(X) / TL38.70(X) OPERATOR'S HANDBOOK

7283167enGB

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.

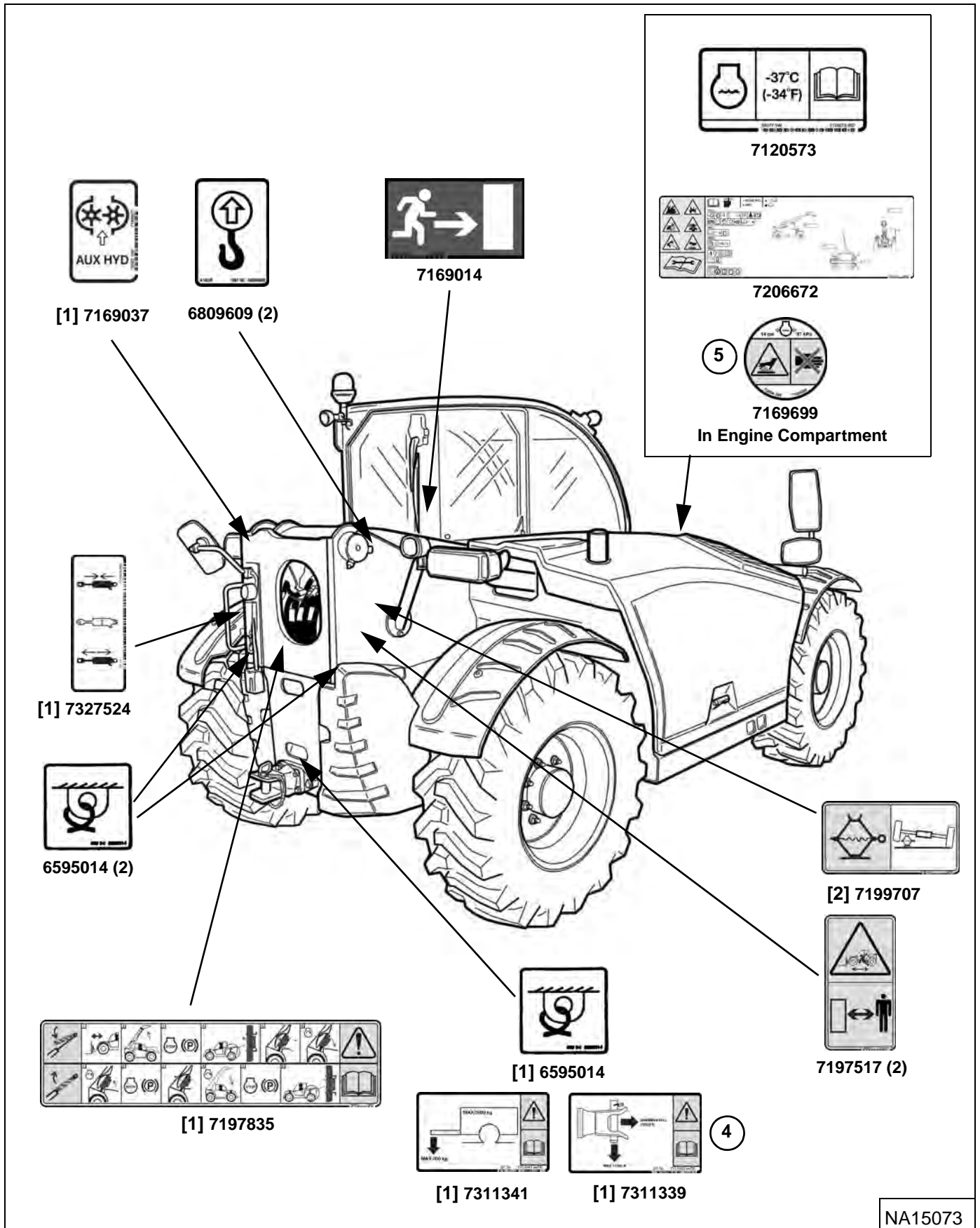


[1] Optional or Field Accessory. (Not Standard Equipment)

[2] Tractor Homologated Telescopic Handler only.

MACHINE SIGNS (DECALS) (CONT'D)

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)

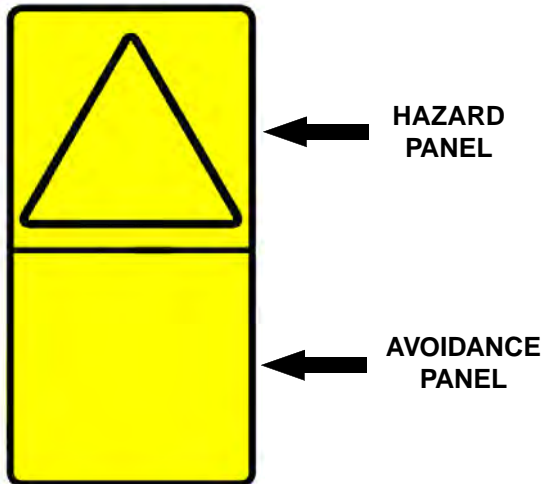
[2] Tractor Homologated Telescopic Handler only.

MACHINE SIGNS (DECALS) (CONT'D)

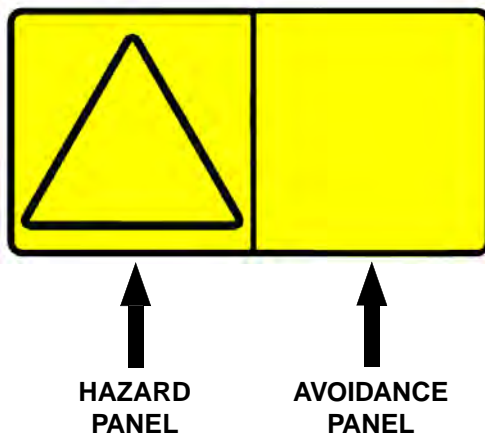
Pictorial-Only Safety Signs

Safety signs are used to alert the equipment operator or maintenance person to hazards that can be encountered in the use and maintenance of the equipment. The location and description of the safety signs are detailed in this section. Please become familiarised with all safety signs installed on the telescopic handler.

Vertical Configuration



Horizontal Configuration



The format consists of the hazard panel(s) and the avoidance panel(s):

Hazard panels depict a potential hazard enclosed in a safety alert triangle.

Avoidance panels depict actions required to avoid the hazards.

A safety sign can contain more than one hazard panel and more than one avoidance panel.

NOTE: See the overview on pages 26 and 27 for the machine location of each correspondingly numbered pictorial-only decal.

1. Falling And Crush Hazards (7198123)

The safety sign is located on each side of the boom head.



LOWERING OF ATTACHMENT, FALLING LOADS OR FALLING OFF ATTACHMENT CAN CAUSE SERIOUS INJURY OR DEATH

- Do not use as a manlift or work platform.
- No riders.
- Keep away from raised boom and attachment.
- Keep bystanders away.

W-2905-0211

2. Unexpected Machine Movement (7197517)

The safety sign is located on each side of the rear of the frame.



UNEXPECTED MACHINE MOVEMENT CAN CAUSE SERIOUS INJURY OR DEATH

- Start engine only from operator seat with transmission lever in neutral and parking brake engaged.
- Do not attempt to start the engine by shorting across the starter terminals.

W-2904-0211

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