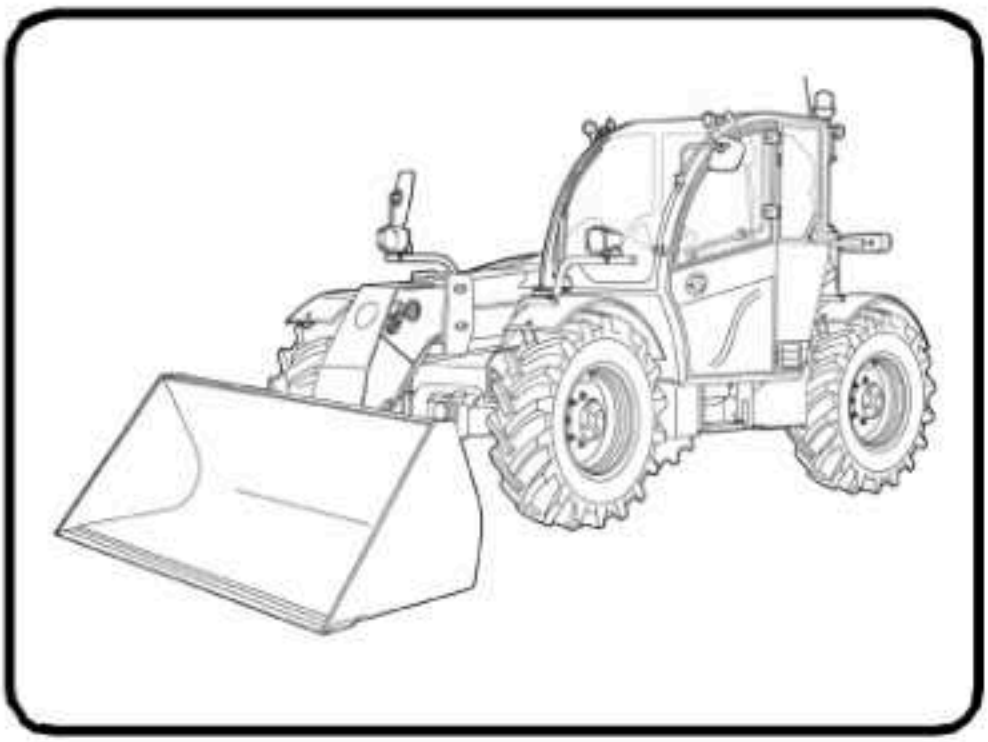
EN

Bobcat®

Operation & Maintenance Manual
TL470(X) Telescopic Handler

S/N ANL711001 & Above
S/N ANMG11001 & Above



6990102-EN (02-11)

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Original Instructions

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CONTENTS

FOREWORD 5
SAFETY & TRAINING RESOURCES 21
LOAD CHARTS 33
OPERATING INSTRUCTIONS 41
SYSTEM SETUP & ANALYSIS 117
PREVENTIVE MAINTENANCE 131
SPECIFICATIONS 177
WARRANTY 185
ALPHABETICAL INDEX 189

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:

CE

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 & 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.

DECLARATION OF CONFORMITY 7
- Model TL470 7
- Model TL470X 8

CERTIFICATE OF CONFORMITY 9

BOBCAT COMPANY IS IS0 9001 CERTIFIED 10

REGULAR MAINTENANCE ITEMS 10
- Parts 10
- Lubricants, Fuel And Fluids 11

SERIAL NUMBER LOCATION 12
- Telescopic Handler Serial Number 12
- Telescopic Handler Statutory Plate (If Equipped) 12
- Engine Serial Number 13
- Other Serial Numbers 13

DELIVERY REPORT 13

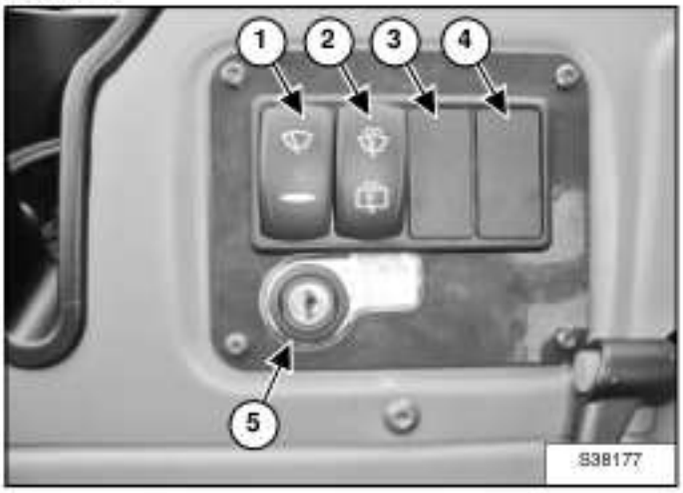
BOBCAT TELESCOPIC HANDLER IDENTIFICATION 14

FEATURES, ACCESSORIES AND ATTACHMENTS 15
- Standard Items 15
- Options And Accessories 15
- Tractor Homologated Telescopic Handler 15
- Available Tyres 16
- Front Window Guard 16
- Front Window Guard Inspection And Maintenance 16
- Attachments 17
- Digging Buckets 17
- Light Material Buckets 17
- Bale Handler With Spikes 18
- Bale Handlers With Tubes 18
- Bale Handlers With Tines 18
- Pallet Forks 18
- Bucket Grapples 19
- Fork Grapples 19

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Left Instrument Panel

Figure 21



Left Instrument Panel **[Figure 21]**

1. **Front Wiper (Green Light)** - Press the bottom of the switch to turn the front wiper ON; press the top to turn OFF.

2. **Washer** - Press and hold the top of the switch to turn the front washer and the top washer ON; press and hold the bottom to turn the rear washer ON.

NOTE: Use the washer in combination with the front wiper and the roof window wiper (optional).

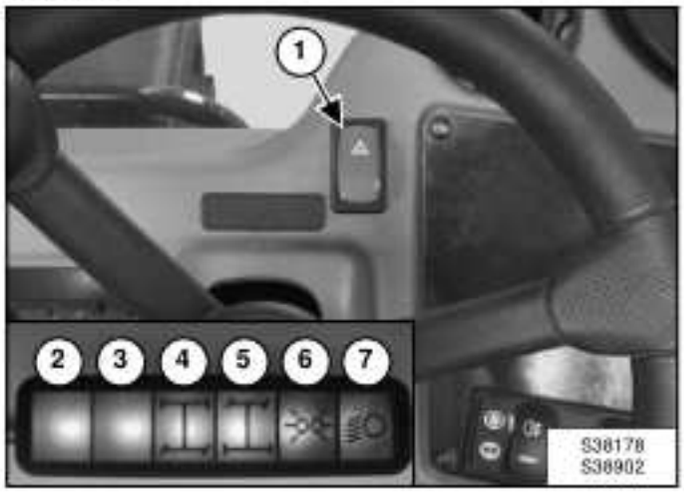
3. **NOT USED**

4. **NOT USED**

5. **Key Switch** - Used to turn the electrical system on and off, and to start and stop the engine (See STARTING THE ENGINE on Page 85.)

Centre Instrument And Indicator Panel

Figure 22



Centre Instrument And Indicator Panel **[Figure 22]**

1. **Hazard Lights (Red Light)** - Press the bottom of the switch to turn the Hazard Lights ON; press the top to turn OFF. Switch light flashes when Hazard Lights are ON.

2. **NOT USED**

3. **NOT USED**

4. **Front Wheel Alignment Indicator (Orange Light).**

5. **Rear Wheel Alignment Indicator (Orange Light).**

6. **Parking Light Indicator (Green Light).**

7. **Low Beam Headlights Indicator (Green Light).**

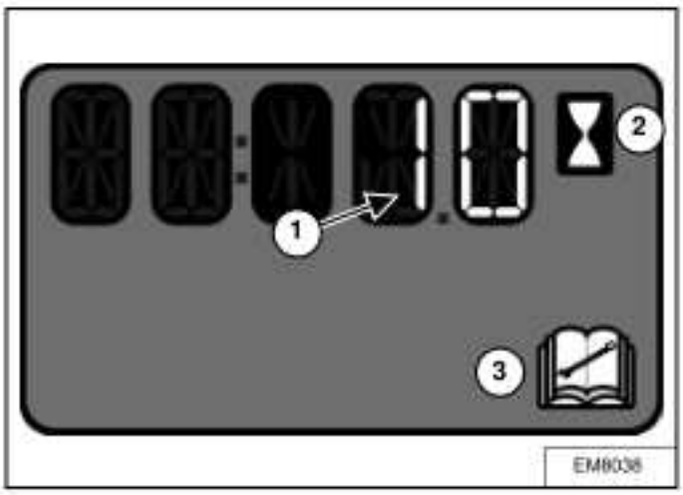
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MAINTENANCE CLOCK

Description

The Maintenance Clock alerts the operator when the next service interval is due. *EXAMPLE:* The Maintenance Clock can be set to a 250 hour interval as a reminder for the next 250 hour planned maintenance.

Figure 151



During machine operation, a two beep alarm will sound when there are less than 10 hours until the next planned maintenance.

The remaining hours (Item 1) before maintenance is required will appear on the display screen for five seconds while the service icon (Item 3) and sandglass icon (Item 2) **[Figure 151]** flash.

NOTE: The display will show negative numbers after counting down to zero.

The display screen will then revert back to the previous menu and will appear for five seconds every time the machine is started until the maintenance clock is reset.

Setup

See your Bobcat dealer about installation of this feature.

Reset

See your Bobcat dealer to reset the maintenance clock.

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(TL470) TELESCOPIC HANDLER SPECIFICATIONS (CONT'D)

Performance

Crowding force - Tilt	6200 daN (13938 lbf)
Crowding force - Lift	3700 daN (8318 lbf)
Drawbar pull	6700 daN (15062 lbf)
Ground pressure on tyres	550 kPa (5,5 bar) (79.8 psi)
Rated load capacity*	3500 kg (7716 lb)
Capacity (at max. height)	3000 kg (6614 lb)
Capacity (at max. reach)	1500 kg (3307 lb)
Tipping load (at max. reach)	1875 kg (4133.7 lb)
Lifting height	6957 mm (273.9 in)
Max. reach	4002 mm (157.6 in)
Max. reach (at max. height)	1143 mm (45.0 in)
Travel Speed in First / Second Gear (TL470) - Without Two-Speed Control - With Two-Speed Control	 0 - 6 km/h (0 - 3.7 mph) / 0 - 16 km/h (0 - 9.9 mph) 0 - 11 km/h (0 - 6.8 mph) / 0 - 30 km/h (0 - 18.6 mph)
Travel Speed in First / Second Gear (TL470X) - Without Two-Speed Control - With Two-Speed Control	 0 - 6 km/h (0 - 3.7 mph) / 0 - 18 km/h (0 - 11.2 mph) 0 - 12 km/h (0 - 7.5 mph) / 0 - 40 km/h (0 - 24.9 mph)

* Static and dynamic tests have been carried out and passed according to EN1459.

Weights

Weight (unladen)	7130 kg (15719 lb)
Front axle weight unladen	2910 kg (6415 lb)
Rear axle weight unladen	4220 kg (9303 lb)
Weight with pallet frame and forks	7410 kg (16336 lb)
Front axle weight with pallet frame and forks	3360 kg (7408 lb)
Rear axle weight with pallet frame and forks	4050 kg (8929 lb)
Weight with pallet frame, forks and 3500 kg (7716 lb) load	10910 kg (24052 lb)
Front axle weight with pallet frame, forks and 3500 kg (7716 lb) load	9180 kg (20238 lb)
Rear axle weight with pallet frame, forks and 3500 kg (7716 lb) load	1730 kg (3814 lb)

Engine

Make / Model	PERKINS / 1104D-44TA
Fuel / Cooling	Diesel / Liquid
Rated power (DIN 6271) at 2200 rpm	74,5 kW (100 hp)
Maximum torque at 1400 rpm	410 N•m (302.4 ft-lb)
Rated speed	2200 rpm
Low idle speed	900 rpm
Cycle Type	4 cycles
Number of cylinders	4
Displacement	4,4 L (1.16 gal)
Bore / Stroke	105 mm (4.1 in) / 127 mm (5 in)
Displacement	4,4 L (1.16 gal)
Lubrication	Gear pump pressure
Crankshaft ventilation	Open breathing
Air Cleaner	Dry replaceable cartridge with safety element
Ignition	Diesel Compression
Air Induction	Turbocharged
Engine Coolant	Propylene Glycol Mix -37°C (34.6°F)

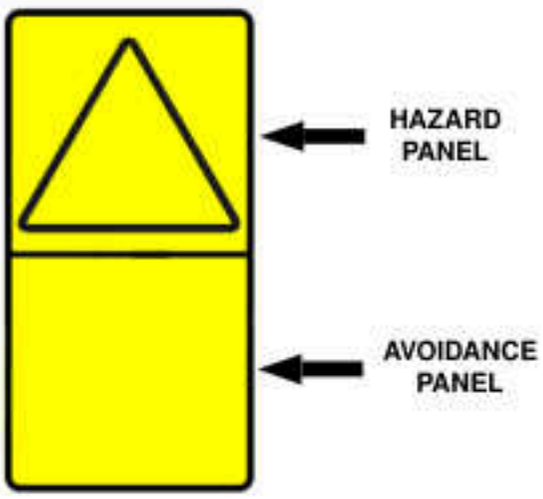
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MACHINE SIGNS (DECALS) (CONT'D)

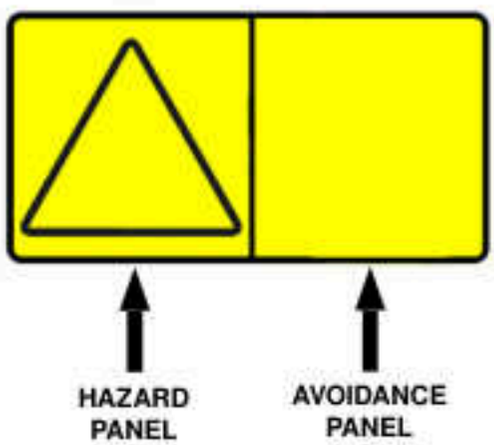
No-Text Safety Signs

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 28 and 29 for the machine location of each correspondingly numbered no-text decal.

1. Falling And Crush Hazards (7198123)

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



⚠ WARNING

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.



⚠ WARNING

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.**

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