

 **Bobcat**[®]
Lubricants



Bobcat recognizes that lubricants play an integral role in equipment performance and reliability which translates into greater customer satisfaction and less down time. "Is the blood of your Bobcat machine orange?" Are orange fluids flowing through the vital components of your machine?

Some keywords...

- ★ **ORANGE** ⇔ high quality genuine Bobcat spare parts and products.
- ★ **ENGINEERING APPROVED** ⇔ lubricants have been thoroughly tested to maintain a longer service life for your equipment.
- ★ **RECOMMENDED** ⇔ lubricant formulations meet or exceed Bobcat specifications and the requirements from other Original Equipment Manufacturers (OEMs), as well as manufacturers of hydraulic pumps, motors and engines.
- ★ **SYNTHETIC** ⇔ guarantees the best performance in any situation, application or environment.
- ★ **BIODEGRADABLE** ⇔ protects the environment.
- ★ **CUSTOMIZED** ⇔ provides the right oil for your machine, designed specifically to meet performance requirements for critical components.
- ★ **PRODUCT SELECTION** ⇔ Our range meets customer needs for flexible packaging, for all sizes of equipment, in all climates.
- ★ **STABILITY** ⇔ guarantees constantly their exceptional properties.
- ★ **CLEAR CONTROL HYDRAULIC / HYDROSTATIC OILS** ⇔ oils have been further filtered to improve service life and to reduce the risk of contamination.

Peace of mind
Use only genuine Bobcat parts



The best way to save on maintenance costs is to use good maintenance practices:

- ★ Use Bobcat quality products designed and specified for Bobcat equipment.
- ★ Change your oil, filters, and breather cap at recommended intervals.
- ★ Regrease daily to improve equipment performance and reliability.
- ★ Maintain the system for peak performance.
- ★ Repair leaks immediately to ensure safety and extend service life! Leaks will introduce air, water and dirt, which can quickly damage sensitive hydraulic / engine / or other vital components.
- ★ Store fluids properly in a clean and dry area. Never store them in an open container.
- ★ Prevent contamination! 80% of hydraulic system failures can be traced to wear induced by contamination. "Will Fit" filters are of unknown quality and performance. Bobcat recommends use of genuine Bobcat parts at required intervals.

Engine Oils

Bobcat Engineering approved. New generation high performance Diesel lubricants. Excellent soot control and oxidation resistance. *Designed and recommended for all Bobcat equipment.* Satisfies the highest American (API) and European (ACEA) specifications. Suitable also for other earth moving machines, commercial vehicles, vans and cars (mixed fleets). Provides best protection for new and older engines.



Bobcat Engine Power SAE 0W/30 ★ Arctic



Bobcat P/N
6987500A
6987500B
6987500C
6987500D

Approval

Bobcat BES 80-0906A

The additive package satisfies, in the Viscosity Grades provided for, the following performance level:

API CI-4 / CH-4 / CG-4 / CF-4 / CF / SL

ACEA E7 / E5 / E3, ACEA A3/B4, A3/B3

MB 228.3, MB 229.1

MAN M 3275

VOLVO VDS-3

MTU Type 2

MACK EO-M Plus

RVI RLD-2

CUMMINS CES 20.071 / 72 / 76 / 77

CUMMINS CES 20.078

CAT ECF-1

ZF TE-ML 07C

Main Characteristics

- Fully synthetic lubricant
- Provides superior lubrication at very low temperature start-ups (-35°C)
- Lower fuel consumption
- Low evaporability, less top-ups required
- Best protection for new and older engines
- Updated additive technology
- Also suitable for petrol engines

Bobcat Engine Power SAE 10W/30 ★ North Continental



Bobcat P/N
6904840A
6904840B
6904840C
6904840D

Approval

Bobcat BES 16-0906A

Performance level:

API CI-4 / CH-4 / CG-4 / CF-4 / CF

ACEA E7 / E5 / E3 / B3

MB 228.3

MAN M3275

VOLVO VDS-2

RVI RLD / RD-2

MACK EO-M Plus

CUMMINS CES 20.071 / 72 / 76 / 77 / 78

ALLISON C4

Main Characteristics

- With synthetic base
- Provides superior lubrication at low temperature start-ups (-25°C)
- All-season protection
- Low evaporability, less top-ups required
- Best protection for new and older engines
- Updated additive technology





Bobcat Engine Power

SAE 15W/40 ★ South Continental



Bobcat P/N
 6904841A
 6904841B
 6904841C
 6904841D

Approval

Bobcat BES 18-0906A

Performance level:

API CI-4 / CH-4 / CG-4 / CF-4 / CF / SL
ACEA E7 / E5 / E3, ACEA A3/B4, A3/B3
 MB 228.3, MB 229.1
 MAN M 3275
 VOLVO VDS-3
 MTU Type 2
 MACK EO-M Plus
 RVI RLD-2
 CUMMINS CES 20.071 / 72 / 76 / 77
 CUMMINS CES 20.078
 CAT ECF-1
 ZF TE-ML 07C
 ALLISON C4

Main Characteristics

- All-season protection
- Best protection for new and older engines
- Updated additive technology
- Low evaporability, less top-ups required
- Also suitable for petrol engines

Bobcat Engine Power

SAE 20W/50 ★ Desert



Bobcat P/N
 6987501A
 6987501B
 6987501C
 6987501D

Approval

Bobcat BES 22-0906A

Performance level:

The additive package satisfies, in the Viscosity Grades provided for, the following performance level:

API CI-4 / CH-4 / CG-4 / CF-4 / CF / SL
ACEA E7 / E5 / E3, ACEA A3/B4, A3/B3
 MB 228.3, MB 229.1
 MAN M 3275
 VOLVO VDS-3
 MTU Type 2
 MACK EO-M Plus
 RVI RLD-2
 CUMMINS CES 20.071 / 72 / 76 / 77
 CUMMINS CES 20.078
 CAT ECF-1
 ZF TE-ML 07C
 ALLISON C4

Main Characteristics

- Suitable for warm climates
- With synthetic base
- Low evaporability, less top-ups required
- Best protection for new and older engines
- Updated additive technology
- Also suitable for petrol engines



Hydraulic/Hydrostatic Oils

Bobcat engineering approved. Special all-season high performance fully synthetic lubricants for hydraulic/hydrostatic systems. *Designed and recommended for all Bobcat equipment and for Bobcat Skid Steer Loader chain cases.*



Bobcat Superior SH Hydraulic ★ Hydrostatic



Bobcat P/N

6904842A
6904842B
6904842C
6904842D

Approval

Bobcat BHS 58-0906A

Performance level:

DIN 51524 Part 3 HLP (new release)

FZG 12 pass

AFNOR 48-690 dry filterability

AFNOR 48-691 wet filterability

VICKERS I-286-S

VICKERS M-2950-S

Main Characteristics

- High filterability: very significant reduction of filter plugging phenomena
- 100% shear stable - Maintains superior performance under operating conditions unlike standard hydraulic lubricants
- Excellent thermal stability: high performance at high temperatures
- Very low deposit formation
- Excellent pumpability / start-ups at low temperatures
- Very high anti-wear properties
- Clear control: highly filtered
- Low evaporability, less top-ups
- High performance (up to 30%)
- Energy savings (up to 10%), thus reduction in energy costs
- Keeps the system clean
- Ensures seal performance and protects critical bearings, cylinder and gears
- Removes heat and wear debris



Bobcat Bio Hydraulic SBH Biodegradable



Bobcat P/N

6904843A
6904843B
6904843C
6904843D

Approval

Bobcat BHS 58B-0906A

Performance level:

AFNOR NFE 48-690 (dry filterability) /

NFE 48-691 (wet filterability) / NFE 603

DIN 51524 Part 3 HLP (new release)

Vickers I-286-S / M-2950-S

Cincinnati Milacron P-68 / P-69 / P-70

Lee Morse 100-1

Jeffrey No. 87

Ford M-6C32

U.S. Steel 127 / 136

B.F. Goodrich 0152

General Motors LH-04-1 / LH-06-1 / LH-15-1

Racine variable volume vane pumps

Main Characteristics

- Biodegradable – Environmentally friendly
- 100% synthetic biodegradable hydraulic lubricant on HEES synthetic esters (not of vegetable origin)
- Can be mixed with BOBCAT Superior SH and conventional hydraulic oils (If blended, performance and biodegradability will be reduced.)
- Excellent thermal stability: high performance at high temperatures
- Very low deposit formation
- Excellent pumpability / start-ups at low temperatures
- Very high anti-wear properties
- Clear control: highly filtered
- Low evaporability, less top-ups
- High performance (up to 30%)
- Energy savings (up to 10%), thus reduction in energy costs
- Keeps the system clean
- Ensures seal performance and protects critical bearings, cylinder and gears
- Removes heat and wear debris



Compatibility with seals:	
Recommended	Not recommended
Fluorocarbon polymers	Butyl rubber
Fluorosilicone rubber	Ethylene propylene copolymers
Nitrile rubber (>30% acrylonitrile)	Nitrile rubber (<30% acrylonitrile)
Polyacrylate rubber	Ethylene propylene terpolymers
Polyurethane rubber	Polychloroprene
Silicone rubber	Natural rubber



Axle/Transmission Oil

Special axle/transmission fluid *designed and recommended for Bobcat Telescopic Handlers (TLS) and Articulated Loaders (AL)*. Suitable also for other applications when an UTTO lubricant type is recommended.



Bobcat Axle/Transmission Oil



Bobcat P/N

6904845A
6904845B
6904845C
6904845D

Approval

Bobcat BAS 60-0906A

Performance level:

API GL-4 Low speed/High torque

DDAD Allison C-3

Caterpillar TO-2

Ford New Holland ESEN M2C86C

Ford New Holland M2C86A/B, M2C41B, M2C48B,

M2C53A, M2C134A/B/C

Massey Ferguson M1135, Massey Ferguson

M1110, M1127, M1129A, M1141

John Deere J20A

Case International J/C 145/MS1210, J/C 185/

MS1204, MS 1205, MS1206, MS 1207, B6

Main Characteristics

- Superior anti-squawk/noise and anti-stick-slip properties.
- Special friction modifiers combined with a balanced and precise blend of other components.
- Suitable for a wide range of friction disc materials (graphite, paper, sintered materials, etc.)
- Longer maintenance intervals
- High thermal resistance
- Recommended for axles with wet brakes, limited slip differentials and gearboxes of Bobcat Telescopic Handlers.
- UTTO = Universal Tractor Transmission Oil

Brake Fluid

Special brake fluid *designed and recommended for Bobcat brake systems on Telescopic Handlers produced until December 2003*. Suitable also for other applications when an LHM oil is recommended.

Do not mix with DOT fluids.

Bobcat Brake Fluid LHM

LHM



Bobcat P/N

6904846A

Approval

Bobcat BBS 00-0906A

Performance level:

AFNOR NF R 12-640, ISO 7308, PSA (Citroen)

B -712710.

Main Characteristics

- Suitable for all climates
- LHM = Liquid Hydraulic Mineral



Coolant/Antifreeze

Special new generation long life silicate free PG coolant/antifreeze *designed and recommended for all Bobcat equipment*. Suitable also for other earth moving machines, commercial vehicles, vans and cars. Provides freeze protection down to -36°C.

Important: do not add water. Premixed - ready for use. Before using Bobcat PG Coolant to replace EG Coolant, thoroughly flush the system.

Bobcat PG Coolant

4 Seasons



Bobcat P/N
6904844A
6904844B
6904844C
6904844D

Main Characteristics

- Long life (up to 5 years)
- Silicate free coolant – highly reduced deposit formation
- Propylene glycol (PG) mixture
- Formulated with demineralized water
- Excellent anti-corrosion protection for aluminum and different alloys/materials
- Recommended for mixed fleet cooling systems
- 4 seasons coolant/antifreeze

Approval

Bobcat BCS 00-0906A



Grease

Bobcat Multi-Purpose Grease

Bobcat P/N 6903122

Sold in lots of 10

Main Characteristics

- High performance lithium-complex grease
- Formulated with high quality base oils and anti-wear additives
- Excellent rust and corrosion protection for prolonged equipment life.
- Designed for routine and moderately loaded applications. Daily regreasing required.
- Formulated protection in wet conditions and under moderate shock loads.

Performance

Excellent protection of lubricated equipment with potential for extended life and reduced maintenance.

Long Life

Excellent high temperature performance with long grease life and reduced maintenance potential.

Drop Point

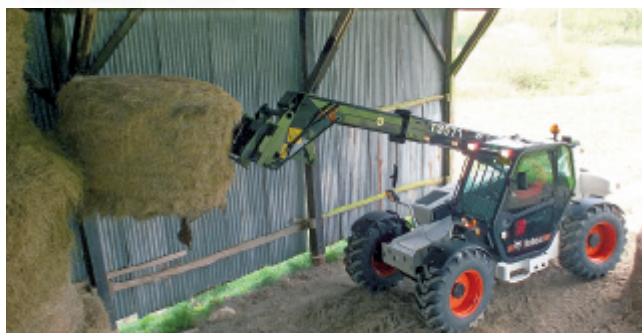
260°C

Rust & Corrosion Protection

Reliable equipment protection against rust and corrosion.

Color

Green





Bobcat Supreme HD Grease

Bobcat P/N 6687884

Sold in lots of 10

Main Characteristics

- Extra high-performance lithium-complex grease with extreme pressure additives
- Excellent protection against rust, corrosion and water, especially axles, rings, and bearings
- Resistance to water wash out
- Superb adhesion and structural stability
- Provides high temperature performance in severe operating conditions
- Designed for routine and heavily loaded applications. Daily regreasing recommended
- Formulated excellent protection in wet conditions and under heavy shock loads
- Ideal for lube points with sliding and pivoting movements
- Universal fleet use

Performance

Highly adhesive and cohesive structure; broad multi-purpose application. Reduced leakage and extended re-lubrication for reduced usage. Very good anti-wear and extreme pressure performance.

Seal Compatibility

Contains polymer to add tackiness to resist “fling off” from grease collar at seal/bushing.

Drop Point

From 280°C

Color

Blue



Bobcat Extreme HP Grease

Bobcat P/N 6687885

Sold in lots of 10

Main Characteristics

- Extra high-performance extreme pressure grease with 3% molybdenum disulfide for increased anti-wear and low speed protection
- Resistance to water wash out
- Excellent adherence to all surfaces, ensuring outstanding lubrication
- Designed for routine and heavily loaded applications. Daily regreasing recommended but can be extended as appropriate for the application
- Provides exceptional protection against wear and heavy shock loads, also in wet conditions
- Operating temperature from -23°C to +177°C
- Universal fleet use

Performance

Heavy-duty, unleaded contractor/mining grease. Good pumpability at low temperatures. Excellent water resistance and extreme pressure capabilities.

Seal Compatibility

Contains polymer to add tackiness to resist “fling off” from grease collar at seal/bushing.

Drop Point

From 260°C

Color

Grey



Summary of Grease Properties			
Property	Multi-Purpose Grease P/N 6903122	Supreme HD P/N 6687884	Extreme HP P/N 6687885
Thickener type	Lithium complex	Lithium complex	Lithium complex
Wear resistant additive type	Anti-wear	Extreme pressure	Extreme pressure
Molybdenum (MoS)	No	No	Yes - 3%
Polymer (water wash)	Minor	Major	Major
Low temperature pumpability <i>Automatic system</i>	Best	Good	Poor
Low temperature pumpability <i>Hand greasing</i>	Excellent	Excellent	Keep grease warm



Lubrication Charts

Component	Loaders and Excavators	Telescopic Handlers
Engine	Bobcat Engine Power	
Gear Box/Axle	---	Bobcat Axle/Transmission Oil
Hydrostatic/Hydrodynamic Systems	Bobcat Superior SH or Bobcat Bio Hydraulic SBH	
Braking System	---	Bobcat Superior SH **
Cooling System	Bobcat PG Coolant	

** For models produced until December 2003 - use Bobcat Brake Fluid LHM

Packaging	Lineart	All Bobcat Equipment							Only for TLS and AL	
		ENGINE				HYDRAULIC/HYDROSTATIC		ANTIFREEZE COOLANT	AXLE TRANSMISSION	BRAKE FLUID
		Bobcat Engine Power SAE 0W/30	Bobcat Engine Power SAE 10W/30	Bobcat Engine Power SAE 15W/40	Bobcat Engine Power SAE 20W/50	Bobcat Superior SH <i>Hydraulic / Hydrostatic</i>	Bobcat Bio Hydraulic <i>Hydraulic / Hydrostatic</i>	Bobcat PG Coolant <i>4 Seasons</i>	Bobcat Axle Transmission Oil	Bobcat Brake Fluid LHM
5L Can		6987500A	6904840A	6904841A	6987501A	6904842A	6904843A	6904844A	6904845A	6904846A
25L Container		6987500B	6904840B	6904841B	6987501B	6904842B	6904843B	6904844B	6904845B	-
209L Drum		6987500C	6904840C	6904841C	6987501C	6904842C	6904843C	6904844C	6904845C	-
1000L Tank		6987500D	6904840D	6904841D	6987501D	6904842D	6904843D	6904844D	6904845D	-

400gr Grease		6903122
		6687884
		6687885

Please note:

Cans are sold in quantities of 4 x 5 L.

1000 L tanks are only available upon request.



Engine Oils

Q: Can I use Bobcat Engine Power series in all engines?

A: Yes. The formulation satisfies all requirements for Bobcat engines. Furthermore, Bobcat Engine Power series can also be used in all 4-stroke diesel engines, when high quality lubricants are recommended. Bobcat Engine Oils satisfy the latest American and European Specifications. Please make sure you choose the correct viscosity grade, in line with your ambient working temperature.

Q: When should I use Bobcat Engine Power SAE 0W/30, SAE 10W/30, SAE 15W/40, or SAE 20W/50?

A: Please refer to the Ambient Temperatures / Viscosity Chart.

Q: Can I top up with Bobcat Engine Power series when there is another lubricant inside the engine?

A: Yes. Nevertheless, in order not to affect the excellent characteristics of Bobcat Engine Power lubricants, we recommend to replace the oil completely.

Synthetic Hydraulic/Hydrostatic Oils

Q: Why should hydraulic/hydrostatic fluids be changed?

A: Anti-wear, keep-clean, anti-foam and anti-oxidant additives are depleted with use, which reduce protection for gears, pumps and other moving parts. Also, oxidization occurs under high temperatures combined with oxygen, pressure and catalysts, causing varnishing, sticking valves, increased operating temperatures, etc. The change is needed to remove accumulated contaminants such as water, dirt and metal particles, which over time reduce effectiveness and can cause abrasive/corrosive attack on system components.

Q: What advantages does the 100% Synthetic Hydraulic oil Bobcat Superior SH offer?

A: The main advantages are higher performance at high temperatures, easier cold start-ups, very low deposit formation, low evaporability / less top-ups, superior stable performance during all service intervals, significant wear reduction, and several other properties. It is truly a superior product.

Q: Can I top up with Bobcat Superior SH if there is another lubricant inside the hydraulic system?

A: Of course. It is completely compatible with traditional mineral lubricants commonly used in hydraulic systems. Nevertheless, we recommend to drain completely the hydraulic system in order to maintain the excellent characteristics of Bobcat Superior SH.

Biodegradable Synthetic Hydraulic Oil

Q: What does "biodegradable" mean?

A: In case of accidental spills on the ground, Bobcat Bio Hydraulic SBH is quickly decomposed by micro-organisms, unlike traditional hydrocarbon lubricants.

Q: Is Bobcat Bio Hydraulic SBH made of vegetable or animal origin esters?

A: No, Bobcat Bio Hydraulic SBH is made from 100% synthetic based oils. This guarantees less deposits (in particular at service temperatures higher than 60°C), improved performance, easier cold weather starting, high resistance at very high service temperatures and all the advantages that a synthetic lubricant can offer in comparison with mineral lubricants.

Coolant/Antifreeze

Q: Up to what freezing protection can we have with Bobcat PG Coolant?

A: Up to -36°C. Please remember that Bobcat PG coolant is ready to be used and one should not add water.

Q: What does "silicate free" coolant/antifreeze mean? Why is Bobcat PG Coolant formulated with demineralised water?

A: It means that the additives used do not contain silicates. This prevents deposits and plugging in the cooling systems. Furthermore, if water is too hard it could cause deposit formation and plugging areas in radiators. By using demineralised water this is avoided.

Q: Can I top up with Bobcat PG Coolant radiators of machines made by other manufacturers?

A: We obviously recommend to flush the system thoroughly with water before using Bobcat PG (Propylene Glycol) Coolant to replace an Ethylene Glycol (EG) based coolant and/or other kinds of coolants (i.e. silicate based).

Axle/Transmission Oil

Q: What are the main advantages of Bobcat Axle/Transmission Oil?

A: It is specifically developed for axles and transmission. The product is formulated with special additives and certain raw materials. This guarantees superior anti-wear protection, excellent anti-noise properties (also in very severe duty applications) better EP (extreme pressure) and anti-foam properties.



Ingersoll Rand is a world leader in the field of compact vehicles and equipment. Our widely known Bobcat® brand includes an extensive line of powerful, nimble compact construction equipment and attachments, and our state-of-the-art engineering capabilities and stylish designs are reflected in our world famous Club Car® vehicles.

www.clubcar.com www.bobcat.com www.ingersollrand.com

