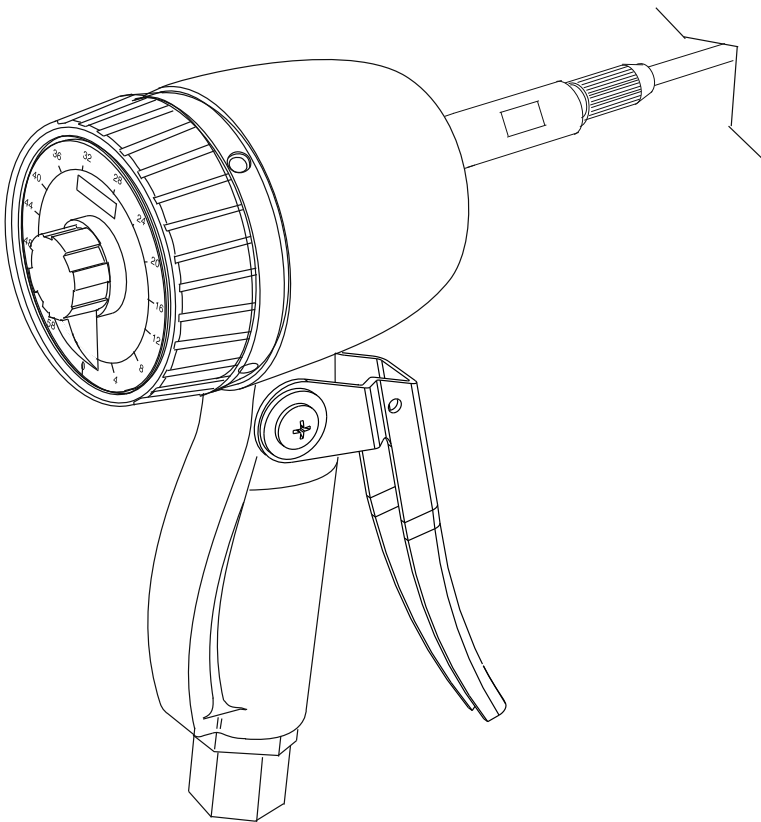


# Metering control valve

Model 3866, 3867, 3868 and 3942 series “A”



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\* Indicates change.

# Safety\*

The assembly must be installed, maintained and repaired exclusively by persons familiar with the instructions.

Always disconnect power source (electricity, air or hydraulic) from the equipment when it is not being used.

This equipment generates high pressure. Extreme caution should be used when operating this equipment as material leaks from loose or ruptured components can inject fluid through the skin and into the body. If any fluid appears to penetrate the skin, seek attention from a doctor immediately. Do not treat injury as a simple cut. Tell attending doctor exactly what type of fluid was injected.

Any other use not in accordance with instructions will result in loss of claim for warranty or liability.

- Do not misuse, over-pressurize, modify parts, use incompatible chemicals, fluids, or use worn and/or damaged parts.
- Do not exceed the stated maximum working pressure of the equipment or of the lowest rated component in your system.
- Always read and follow the manufacturer's recommendations regarding fluid compatibility, and the use of protective clothing and equipment.
- Failure to comply may result in personal injury and/or damage to equipment.

## Explanation of signal words for safety

### NOTE

Emphasizes useful hints and recommendations as well as information to prevent property damage and ensure efficient trouble-free operation.

### CAUTION

Indicates a dangerous situation that can lead to light personal injury if precautionary measures are ignored.

### WARNING

Indicates a dangerous situation that could lead to death or serious injury if precautionary measures are ignored.

### DANGER

Indicates a dangerous situation that will lead to death or serious injury if precautionary measures are ignored.

### WARNING

Do not operate equipment without reading and fully understanding safety warnings and instructions.

Failure to follow warnings and instructions may result in serious injury.



### CAUTION

Do not operate equipment without wearing personal protective gear.

Wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

Failure to comply may result in light personal injury.



### WARNING



Do not allow any body part to be trapped by equipment.

Body parts can be crushed by subassemblies during

operation.

Failure to comply may result in death or serious physical injury.

### WARNING



Do not allow fluid to leak onto floor when operating equipment. If spill occurs, clean any fluid on floor before continuing operation.

Failure to comply may result in death or serious personal injury.

\* Indicates change.

## Specifications

	Model 3866	Model 3867	Model 3868	Model 3942
Dial capacity	1 to 16 quarts (1 to 15 liters)	1 to 60 quarts (1 to 57 liters)	1 to 60 gallons (3,8 to 227 liters)	1 to 60 gallons (3,8 to 227 liters)
Totalizer	Quarts	Gallons	Gallons	Gallons
Maximum flow	4 gallons/min (15 liters/min)	4 gallons/min (15 liters/min)	4 gallons/min (15 liters/min)	4 gallons/min (15 liters/min)
Minimum flow	0.4 gallons/min (1,5 liters/min)	0.4 gallons/min (1,5 liters/min)	0.4 gallons/min (1,5 liters/min)	0.4 gallons/min (1,5 liters/min)
Maximum operating pressure	1 000 psi (70 bar)	1 000 psi (70 bar)	1 000 psi (70 bar)	1 000 psi (70 bar)
Maximum operating temperature	110 °F (45 °C)	110 °F (45 °C)	110 °F (45 °C)	110 °F (45 °C)
Accuracy	+/- 0.65%	+/- 0.65%	+/- 0.65%	+/- 0.65%
Weight	3.3 lbs (1,5 kg)	3.3 lbs (1,5 kg)	3.3 lbs (1,5 kg)	3.3 lbs (1,5 kg)
Meter inlet and outlet threads	1/2 NPTF	1/2 NPTF	1/2 NPTF	1/2 NPTF
Graduation	1/2 quart (1 liter)	-	-	-

## Operation

Meters can handle petroleum products such as automatic transmission fluid, S.A.E. 5 to 50 weight motor oil, S.A.E. 80 to 240 weight gear oil and antifreeze fluid (ethylene glycol).

Preset meters 3866 and 3942 are set by turning knob counter-clockwise to desired amount of material to be dispensed. Trigger is then depressed and locked in **on** position.

Pointer knob rotates clockwise towards zero where it strikes pin in meter face above **0** zero, that releases lock bar automatically stopping flow.

Meter 3866 can be stopped prior to dispensing preset amount by rotating pointer manually clockwise until it strikes pin above "0" zero, or by pushing pin counter-clockwise by hand leaving knob indicating remaining amount to be dispensed.

Meters 3867, 3868 and 3942 can be locked in **on** position by engaging trigger lock, to release lock, depress trigger.

Before each use, reset meter by rotating indicator knob counter-clockwise to zero.

### ⚠ WARNING

Systems dispensing fluids under pressure may need to be protected by using a thermal relief kit that will safely limit pressures caused by thermal expansion. Please contact local Lincoln distributor and refer to manual **430260** for more details.

Failure to include thermal relief protection may cause damage not covered under warranty policy.

### ⚠ CAUTION

Before meter can be placed in service **After Repair**, meter must be tested and approved in accordance with U.S. Government's Weights and Measures Standards.

### ⚠ CAUTION

New metering systems must be purged prior to installation of metering control valve to free system of contaminants.

### NOTE

The automatic nozzle requires 60 psi to open and function properly. Pump exceeding 60 psi is required for adequate flow and proper operation. Pump ratio of at least 3:1 is recommended.

### NOTE

The unit is not for resale of product and is not subject to resale tolerances.

## Troubleshooting meter

Possible cause	Corrective action
No material flow.	Check pump. Check air supply. Check for obstruction in supply hose. Check screens.
Leaking at handle trigger assembly.	Check o-rings on cam. Check flow rate and meter pressure.
Partial material flow.	Check screens.
Leaks after shut-off.	Check valve seat assembly in handle for foreign particles obstructing seating of valve. Faulty nozzle.
Material flowing- Odometer not registering and meter indicator turning.	Check for broken odometer gears.
Oil leakage in odometer.	Check gland packing.
Material flowing- Odometer not registering and metering indicator not turning.	Check piston and chamber for foreign particles. Check reset knob is tight on shaft of driver pawl gear.
Material flowing- Odometer registering and meter indicator not turning.	Check set screw on indicator. Check stem on upper driver gear to ensure not loose from gear body.
Pre-set only. No auto shut-off.	Check lock pawl not bent and by-passing indicator. Check reset knob tube assembled properly on drive pawl gear.

### Parts list

Item	Description	Part	Quantity	Item	Description	Part	Quantity
6	Lock pawl	69304-13	1	28	Quad ring	68410-4	2
7	Lockbar	69304-5	1	29	Cam	69304-2	1
8	E-ring	69304-14	1	30	Trigger assembly	69304-4	1
9	Lock pawl spring	69304-12	1	31	Hand guard	69304-24	1
11	Screw	70457-7	4	32	Adapter	243175	1
12	Washer	69304-23	1	33	O-ring	243176	1
13	Clutch roller	66871-4	2	34	Screen	68410-27	1
14	Clutch spring	66871-3	2	35	Spring	69304-3	1
17	Knob assembly	242913	1	36	Valve seat assembly	1)	1
18	Shroud	68410-12	1	37	Valve sleeve assembly	1)	1
19	Shroud screw	66871-5	4	38	Valve assembly	271700	1
22	Set screw	50541	1	39	Pin lock pawl	236400	1
25	O-ring	66871-12	1	40	Packing kit	237388	1
26	Cap	68410-14	1	41	Gear and pinion assembly	279761	1
27	Screw	68410-2	2	42	Gear and pinion assembly	279762	1

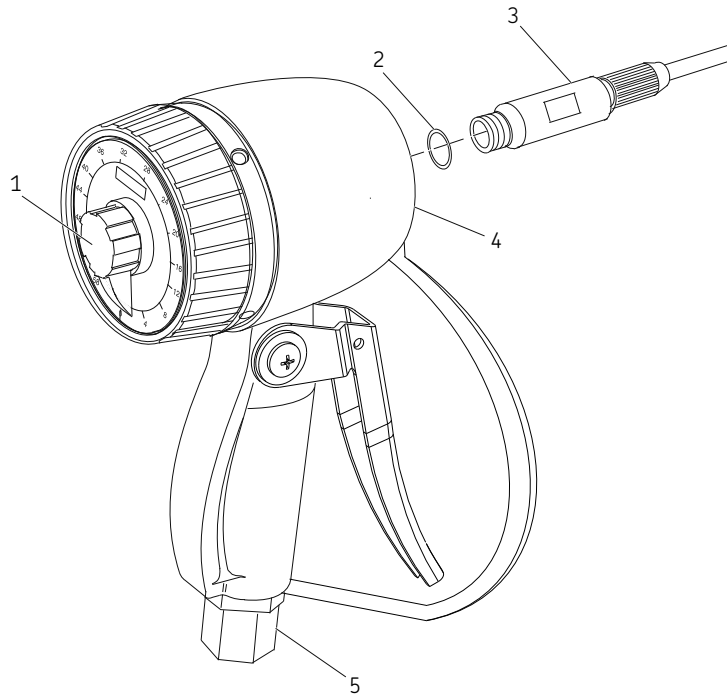
### Miscellaneous parts

Item	Description	Quantity	Model 3866	Model 3867	Model 3868	Model 3942
1	Indicator knob	-	-	-	-	-
2	O-ring <sup>2)</sup>	34210	34210	34210	34210	
3	Nozzle (non-drip)	93548	93548	93548	93548	
4	Basic meter	70457	69304	68499	68795	
5	Swivel, 1/2 in NPTF	90464	90464	90464	90464	
10	Register assembly	1	69795-3	68602-8	68602-8	69795-3
15	Compound gear assembly	1	70457-3	69304-9	69304-9	69304-9
16	Dial assembly	1	70457-1*	69303	70247 *	69795-1
20	Preset knob drive cam	1	70457-4	69304-10	69304-10	69304-10
21	Worm assembly	1	66871-54	66871-157	66871-157	69795-2
23	Upper driving pawl gear assembly	1	66871-111	66871-111	66871-111	69795-4
24	Chamber and piston assembly	1	68410-15	68410-15	68410-15	69795-5

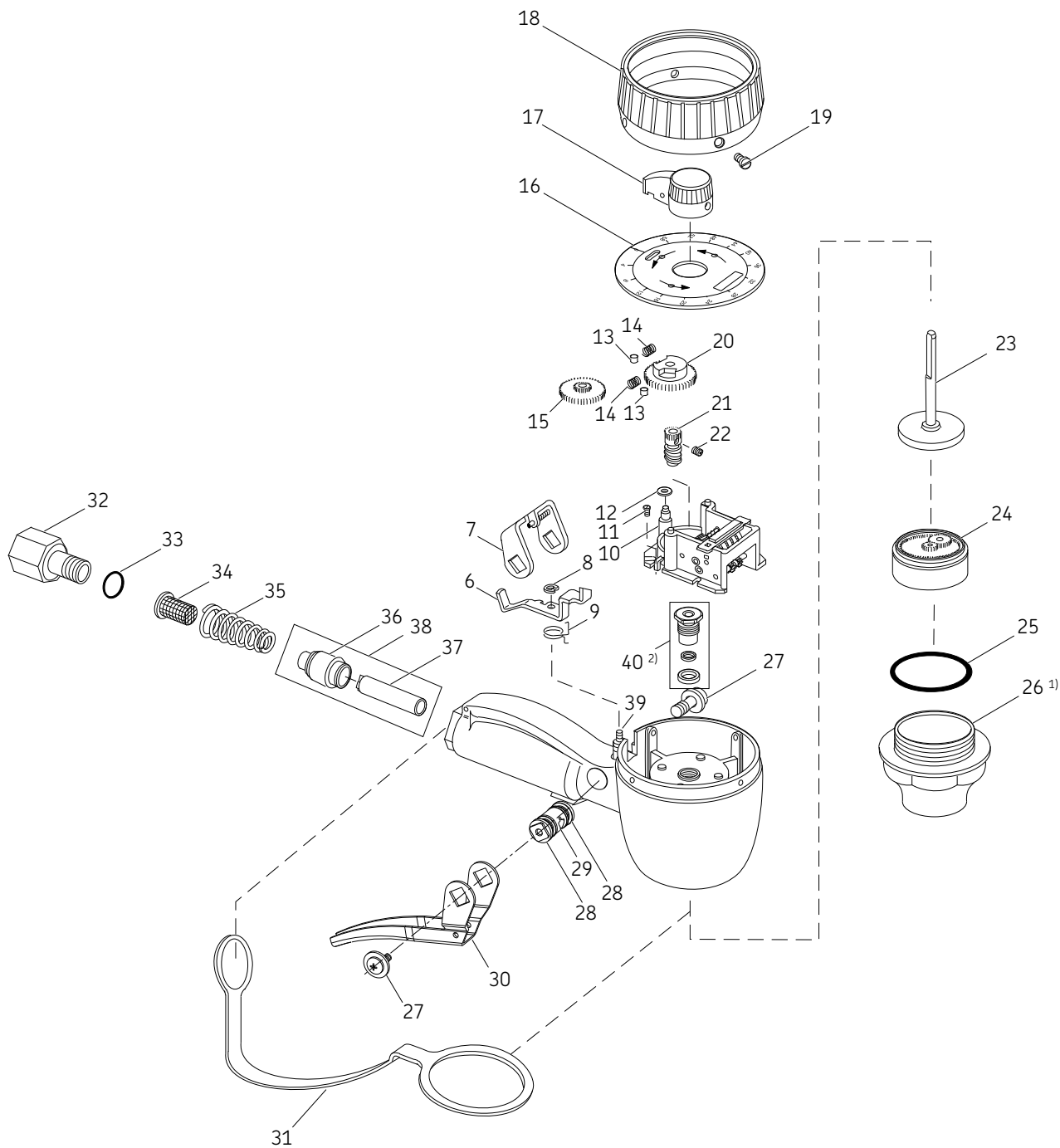
1) See valve assembly item **38**.

2) Included with 93548 nozzle. May be purchased separately.

\* Indicates change.



Models 3866, 3867 and 3942



<sup>1)</sup> Tighten to 30 to 40 ft.lb (40,6 to 54,3 Nm) maximum.  
<sup>2)</sup> Tighten to 60 to 80 in.lb (6,7 to 9 Nm) maximum.  
 Dial totals: 16 quarts (12 liters), Graduation: 1/2 quart (1 liter).

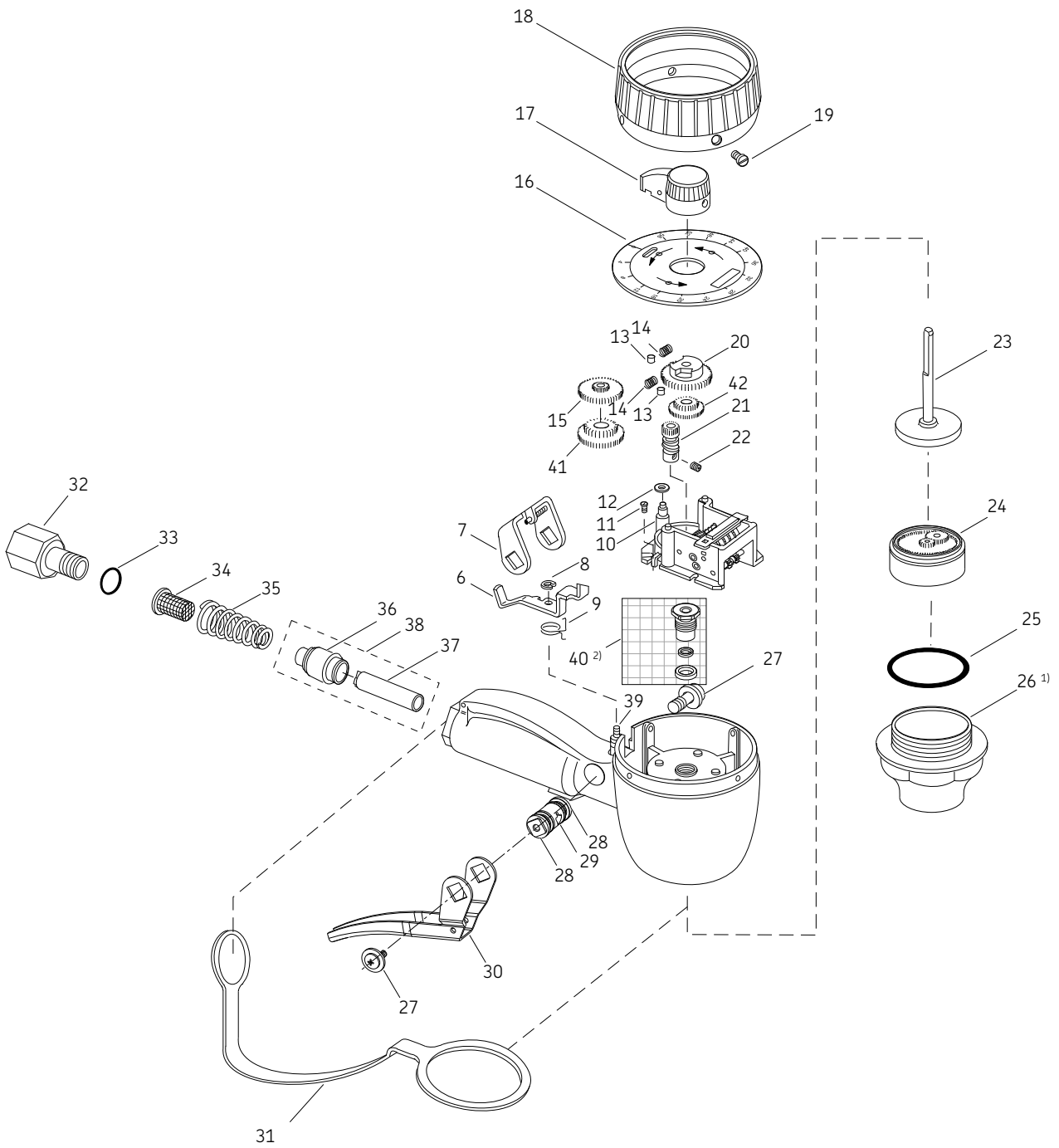
**CAUTION**

Do not allow meter to become damaged, lock bar (7) can become bent and screw may fail to contact lock pawl (6). If this happens, meter will not shut off at preset amount, frequent inspection is recommended.

**CAUTION**

Do not turn pointer in clockwise direction. This will damage meter.  
 Pointer can only be returned to zero stop in counter-clockwise direction after delivery.

Model 3868



1) Tighten to 30 to 40 ft.lb (40,6 to 54,3 Nm) maximum.  
 2) Tighten to 60 to 80 in.lb (6,7 to 9 Nm) maximum.

**CAUTION**

If meter is mishandled, the lock bar (7) can become bent and screw may fail to contact lock pawl (6). If this happens, the meter will not shut off at preset amount, frequent inspection is recommended.

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## Warranty

The instructions do not contain any information on the warranty.  
This can be found in the General Conditions of Sales, available at:  
[www.lincolnindustrial.com/technicalservice](http://www.lincolnindustrial.com/technicalservice) or [www.skf.com/lubrication](http://www.skf.com/lubrication).

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