

ECLA EUROPEAN CLASSIFICATION

F16N LUBRICATING

Note

Attention is drawn to the following places:

A01D69/12	Lubrication of harvesters;
B21J3/00	Lubricating during forging or pressing;
B25D17/26	Lubricating of portable power-driven percussive tools;
B60R17/00	Arrangements or adaptations of lubricating; systems or devices in vehicles;
B61C17/08	Lubrication systems for railway locomotives;
B62D55/092	Vehicle endless-track units with lubrication means;
D04B35/28	Devices for lubricating knitting machine parts;
E05B17/08	Lubricating devices for locks;
E05D11/02	Lubricating arrangements for hinges;
E21B10/22	Lubricating details of roller drill bits for earth; drilling.

Guide heading: Lubrication devices or arrangements for oil or grease

F16N1/00 **Constructional modifications of parts of machines or apparatus for the purpose of lubrication**

F16N3/00 **Devices for supplying lubricant by manual action (draining equipment for liquid containers [B65D](#))**

- F16N3/02 . delivering oil
- F16N3/04 . . Oil cans; Oil syringes
- F16N3/06 . . . delivering on squeezing
- F16N3/08 . . . incorporating a piston-pump
- F16N3/10 . delivering grease
- F16N3/12 . . Grease guns

F16N5/00 **Apparatus with hand-positioned nozzle supplied with lubricant under pressure ([F16N3/00](#) takes precedence)**

- F16N5/02 . Nozzles or nozzle-valve arrangements therefor, e.g. high-pressure grease guns

F16N7/00 **Arrangements for supplying oil or unspecified lubricant from a stationary reservoir or the equivalent in or on the machine or member to be lubricated (axle-box lubrication for railway rolling-stock [B61F17/00](#))**

- F16N7/02 . with gravity feed or drip lubrication
- F16N7/04 . . with oil flow promoted by vibration

- F16N7/06 . . Arrangements in which the droplets are visible
- F16N7/08 . . controlled by means of the temperature of the member to be lubricated (thermostats [G05D](#))
- F16N7/10 . . incorporating manually-operated regulating means, e.g. spindles
- F16N7/12 . with feed by capillary action, e.g. by wicks
- F16N7/14 . the lubricant being conveyed from the reservoir by mechanical means (by pumping devices [F16N7/36](#), [F16N7/38](#); adaptations for lubrication of machines or engines in general, of internal-combustion engines [F01M](#))
- F16N7/16 . . the oil being carried up by a lifting device (scoop devices in general [F04D](#))
- F16N7/18 . . . with one or more feed members fixed on a shaft
- F16N7/20 . . . with one or more members moving around the shaft to be lubricated
- F16N7/22 shaped as rings
- F16N7/24 . . . with discs, rollers, belts or the like contacting the shaft to be lubricated
- F16N7/26 . . Splash lubrication (mist lubrication [F16N7/32](#))
- F16N7/28 . . Dip lubrication
- F16N7/30 . the oil being fed or carried along by another fluid (in internal- combustion engines [F02F](#))
- F16N7/32 . . Mist lubrication (splash lubrication [F16N7/26](#))
- F16N7/34 . . . Atomising devices for oil (atomising devices in general [B05B](#))
- F16N7/36 . with feed by pumping action of the member to be lubricated or of a shaft of the machine; Centrifugal lubrication
- F16N7/36C . . [N: Centrifugal lubrication]
- F16N7/36V . . [N: with feed by pumping action of a vertical shaft of the machine]
- F16N7/38 . with a separate pump; Central lubrication systems
- F16N7/38B . . [N: Central lubrication systems]
- F16N7/40 . . in a closed circulation system
- F16N9/00** **Arrangements for supplying oil or unspecified lubricant from a moving reservoir or the equivalent (also usable with a stationary reservoir [F16N7/00](#))**
- F16N9/02 . with reservoir on or in a rotary member
- F16N9/04 . with reservoir on or in a reciprocating, rocking, or swinging member
- F16N11/00** **Arrangements for supplying grease from a stationary reservoir or the equivalent in or on the machine or member to be lubricated; Grease cups**
- F16N11/02 . Hand-actuated grease cups, e.g. Stauffer cups
- F16N11/04 . Spring-loaded devices
- F16N11/06 . Weight-loaded devices
- F16N11/08 . with mechanical drive, other than directly by springs or weights ([lubricating-pumps](#))

F16N13/00

- F16N11/10 . by pressure of another fluid
- F16N11/12 . by centrifugal action

F16N13/00 **Lubricating-pumps** (oil cans with pump [F16N3/08](#); pumps for liquids in general [F04](#))

- F16N13/02 . with reciprocating piston (pumps with distributing equipment [F16N13/22](#))
- F16N13/04 . . Adjustable reciprocating pumps
- F16N13/06 . . Actuation of lubricating-pumps
- F16N13/08 . . . by hand [[N](#): or foot]
- F16N13/10 . . . with mechanical drive ([F16N13/18](#) takes precedence)
- F16N13/12 with ratchet
- F16N13/14 with cam or wobble-plate on shaft parallel to the pump cylinder or cylinders
- F16N13/16 . . . with fluid drive
- F16N13/18 . . . relative movement of pump parts being produced by inertia of one of the parts or of a driving member
- F16N13/20 . Rotary pumps (with distributing equipment [F16N13/22](#))
- F16N13/22 . with distributing equipment (separate distributing equipment [F16N25/00](#))

F16N15/00 **Lubrication with substances other than oil or grease; Lubrication characterised by the use of particular lubricants in particular apparatus or conditions** ([F16N17/00](#) takes precedence; lubricating compositions, selection of particular substances as lubricants in general [C10M](#); bearings with surfaces incorporating lubricant [F16C33/04](#); lubrication specially adapted to machines or apparatus provided for in a single other class, see the relevant class for the machine or apparatus)

- F16N15/02 . with graphite or graphite-containing compositions
- F16N15/04 . with water (bearings working in water [F16C](#))

F16N17/00 **Lubrication of machines or apparatus working under extreme conditions** (additives to lubricating oil or lubricating grease [C10M](#))

- F16N17/02 . at high temperature (of turbines [F01D](#), [F02C](#); lubrication of machines or engines in general, of internal-combustion engines [F01M](#))
- F16N17/04 . at low temperature (lubrication of refrigerating machines [F25B](#))
- F16N17/06 . in vacuum or under reduced pressure (lubrication of evacuating pumps [F04](#); of rotary anodes of X-ray tubes [H01J35/10](#))

Guide heading: **Details of lubricators or lubrication systems****F16N19/00** **Lubricant containers for use in lubricators or lubrication systems**

- F16N19/00B . [N: Indicating oil level (measuring liquid level in general G01F)]
- F16N19/00C . [N: Maintaining oil level (level control in general G05D9/00)]

- F16N21/00** **Conduits; Junctions (in general F16L); Fittings for lubrication apertures**
- F16N21/02 . Lubricating nipples
- F16N21/04 . Nozzles for connection of lubricating equipment to nipples
- F16N21/06 . Covering members for nipples, conduits or apertures

- F16N23/00** **Special adaptations of check valves (check valves in general F16K)**

- F16N25/00** **Distributing equipment [N: with or without proportioning devices]**
- F16N25/02 . with reciprocating distributing slide valve
- F16N25/04 . with rotary distributing member (combined with oil pump F16N13/22)

- F16N27/00** **Proportioning devices (liquid meters G01F)**
- F16N27/00R . [N: using restrictions]
- F16N27/02 . Gating equipment (multiple-way valves F16K; metering cocks G01F)

- F16N29/00** **Special means in lubricating arrangements or systems providing for the indication or detection of undesired conditions; Use of devices responsive to conditions in lubricating arrangements or systems (in bearings F16C; constructions of apparatus outside the lubricating arrangements or systems, see the relevant classes)**
- F16N29/02 . for influencing the supply of lubricant
- F16N29/04 . enabling a warning to be given; enabling moving parts to be stopped

- F16N31/00** **Means for collecting, retaining, or draining-off lubricant in or on machines or apparatus (oil separators for separating oil from exhaust steam F22G)**
- F16N31/00B . [N: Drain pans]
- F16N31/00B2 . . [N: combined with container]
- F16N31/00C . [N: Drip trays]
- F16N31/02 . Oil catchers; Oil wipers (oil-scraping rings for pistons F16J9/20; [N: cleaning means for indicating or measuring dip members, e.g. dipstick wipers G01F23/04K])

- F16N33/00** **Mechanical arrangements for cleaning lubricating equipment; Special racks or the like for use in draining lubricant from machine parts**

- Guide heading:** **Care of lubricants**
- F16N35/00** **Storage of lubricants in engine-rooms or the like** (storage containers [B65](#))
- F16N37/00** **Equipment for transferring lubricant from one container to another**
- F16N37/00B . [N: for filling bearings]
- F16N37/02 . for filling grease guns
- F16N39/00** **Arrangements for conditioning of lubricants in the lubricating system** (cleaning of lubricating oil, lubricating compositions [C10M](#))
- F16N39/00B . [N: by deaeration (degasification of liquids [B01D19/00](#))]
- F16N39/00C . [N: by evaporating or purifying (for heating or cooling of filters [B01D35/18](#), e.g. comprising a vaporising unit [B01D35/18B](#))]
- F16N39/02 . by cooling (heat-exchangers in general [F28](#))
- F16N39/04 . by heating (heat-exchangers in general [F28](#))
- F16N39/06 . by filtration (filters in general [B01D](#); magnetic separators [B03C1/00](#); [N: centrifugal separators or filters [B04B5/00B](#)])
- F16N39/08 . by diluting, e.g. by addition of fuel (lubrication of machines or engines in general, of internal-combustion engines [F01M](#))
- F16N99/00** **Subject matter not provided for in other groups of this subclass** [\[N0704\]](#)