

**ECLA****EUROPEAN CLASSIFICATION****F01M****LUBRICATING OF MACHINES OR ENGINES IN GENERAL (lubricating in general [F16N](#)); LUBRICATING INTERNAL COMBUSTION ENGINES; CRANKCASE VENTILATING****Note**

Attention is drawn to the notes preceding class [F01](#), specially as regards Note (3).

**F01M1/00****Pressure lubrication**

- [F01M1/02](#) . using lubricating pumps ([pumps in general F04](#); [lubricating pumps per se F16N](#))
- [F01M1/04](#) . using pressure in working cylinder or crankcase to operate lubricant feeding devices
- [F01M1/06](#) . Lubricating systems characterised by the provision therein of crankshafts or connecting rods with lubricant passageways, e.g. bores ([crankshafts, connecting-rods, per se F16C](#))
- [F01M1/08](#) . Lubricating systems characterised by the provision therein of lubricant jetting means
- [F01M1/10](#) . Lubricating systems characterised by the provision therein of lubricant venting or purifying means, e.g. of filters
- [F01M1/12](#) . Closed-circuit lubricating systems not provided for in groups [F01M1/02](#) to [F01M1/10](#)
- [F01M1/14](#) . Timed lubrication ([F01M1/08](#) takes precedence)
- [F01M1/16](#) . Controlling lubricant pressure or quantity ([rendering machines or engines inoperative or idling on lubricant pressure failure F01M1/22](#))
- [F01M1/18](#) . Indicating or safety devices ([concerning lubricant level F01M11/06, F01M11/12](#))
- [F01M1/20](#) . . concerning lubricant pressure
- [F01M1/22](#) . . . rendering machines or engines inoperative or idling on pressure failure
- [F01M1/24](#) . . . . acting on engine fuel system
- [F01M1/26](#) . . . . acting on engine ignition system
- [F01M1/28](#) . . . . acting on engine combustion-air supply

**F01M3/00****Lubrication specially adapted for engines with crankcase compression of fuel-air mixture or for other engines in which lubricant is contained in fuel, combustion air, or fuel-air mixture ([separating lubricant from air or fuel-air mixture before entry into cylinder F01M11/08](#))**

- [F01M3/02](#) . with variable proportion of lubricant to fuel, lubricant to air, or lubricant to fuel-air-mixture
- [F01M3/04](#) . for upper cylinder lubrication only

**F01M5/00****Heating, cooling, or controlling temperature of lubricant ([arrangement of lubricant coolers in engine cooling system F01P11/08](#)); lubrication means facilitating engine**

**starting**

- F01M5/00B . [N: Heating]
- F01M5/00C . [N: Cooling]
- F01M5/00D . [N: Controlling temperature of lubricant]
- F01M5/00D1 . . [N: Thermostatic control]
- F01M5/02 . Conditioning lubricant for aiding engine starting, e.g. heating
- F01M5/02B . . [N: by heating]
- F01M5/02C . . [N: by prelubricating, e.g. using an accumulator]
- F01M5/04 . . Diluting, e.g. with fuel

**F01M7/00 Lubrication means specially adapted for machine or engine running-in****F01M9/00 Lubrication means having pertinent characteristics not provided for in, or of interest apart from, groups [F01M1/00](#) to [F01M7/00](#)**

- F01M9/02 . having means for introducing additives to lubricant
- F01M9/04 . Use of fuel as lubricant
- F01M9/06 . Dip or splash lubrication
- F01M9/08 . Drip lubrication
- F01M9/10 . Lubrication of valve gear or auxiliaries
- F01M9/10B . . [N: of cam surfaces]
- F01M9/10C . . [N: of camshaft bearings]
- F01M9/10D . . [N: of valve stem and guide]
- F01M9/10E . . [N: of tappets]
- F01M9/10F . . [N: using distribution conduits]
- F01M9/10R . . [N: Oil reservoirs]
- F01M9/10S . . [N: of rocker shaft bearings]
- F01M9/10T . . [N: of auxiliaries]
- F01M9/10V . . [N: of rotary slide or sleeve valves]
- F01M9/12 . Non-pressurised lubrication, or non-closed-circuit lubrication, not otherwise provided for

**F01M11/00 Component parts, details or accessories, not provided for in, or of interest apart from, groups [F01M1/00](#) to [F01M9/00](#)**

- F01M11/00B . [N: Oilsumps]

- F01M11/02 . Arrangements of lubricant conduits
- F01M11/03 . Mounting or connecting of lubricant purifying means relative to the machine or engine; Details of lubricant purifying means ([filters B01D](#))
- F01M11/04 . Filling or draining lubricant of or from machines or engines
- F01M11/04B . . [N: Sump drainage devices, e.g. valves, plugs]
- F01M11/04C . . [N: Removing lubricant by suction]
- F01M11/04D . . [N: Lubricant filling and draining]
- F01M11/06 . Means for keeping lubricant level constant or for accommodating movement or position of machines or engines
- F01M11/06L . . [N: Means for keeping lubricant level constant] [N9605]
- F01M11/06M . . [N: Accommodating movement or position of machines or engines, e.g. dry sumps] [N9605]
- F01M11/06M1 . . . [N: Movement] [N9605]
- F01M11/06M2 . . . [N: Position] [N9605]
- F01M11/06M2F . . . . [N: inverted, e.g. for inverted flight] [N9605]
- F01M11/08 . Separating lubricant from air or fuel-air mixture before entry into cylinder ([separating in general B01D](#))
- F01M11/10 . Indicating devices; Other safety devices
- F01M11/12 . . concerning lubricant level
- F01M13/00 Crankcase ventilating or breathing**
- F01M13/00B . [N: Breather valves]
- F01M13/00D . [N: Breather inlet-air filters]
- F01M13/02 . by means of additional source of positive or negative pressure
- F01M13/02N . . [N: of negative pressure]
- F01M13/02N2 . . . [N: using engine inlet suction]
- F01M13/02N2B . . . . [N: Control valves in suction conduit]
- F01M13/02N2D . . . . [N: with an inlet-conduit via an air-filter]
- F01M13/02P . . [N: of positive pressure]
- F01M13/04 . having means for purifying air before leaving crankcase, e.g. removing oil
- F01M13/04B . . [N: arranged in covering members apertures, e.g. caps]
- F01M13/04D . . [N: arranged in valve-covers]
- F01M13/06 . specially adapted for submersible engines, e.g. of armoured vehicles