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Contents

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Demulsibility :

Ability of an oil to separate from water, as determined by test method ASTM D 1401 or D 2711. Demulsibility is an important consideration in lubricant maintenance in many circulating lubrication systems.

Demulsifier :

Additive that promotes oil-water separation in lubricants that are exposed to water or steam.

Density :

The mass of a unit of volume of a substance as compared to Water which has a density of one.

DEO :

Diesel Engine Oil.

Detergency :

The ability of an oil to keep working surfaces of equipment clean (i.e. free from contaminants) by holding oil-insoluble material in suspension thus preventing deposition where it would be harmful.

Detergent :

Important additive component of engine oils and some industrial lubricants, such as paper machine oils and hydraulic fluids; helps control deposits by preventing contaminants of combustion from directly contacting metal surfaces and, in some cases, by neutralizing acids. A detergent is usually a metallic (commonly barium, calcium, or magnesium) compound, such as a sulfonate, phosphonate, thiophosphonate, phenate, or salicylate. Because of its metallic composition, a detergent leaves a slight ash when the oil is burned. Adetergent is normally used in conjunction with a dispersant.

Detergent oil :

Is a lubricating oil possessing special sludge-dispersing properties usually conferred on the oil by the incorporation of special additives. Detergent oils hold formed sludge particles in suspension and thus promote cleanliness especially in internal-combustion engines. However detergent oils do not contain "detergents" such as those used for cleaning of laundry or dishes. Also detergent oils do not clean already "dirty" engines, but rather keep in suspension the sludge that petroleum oil forms so that the engine remains cleaner for longer period. The formed sludge particles are either filtered out by Oil Filters or drained out when oil is changed.

DHD :

Diesel Heavy Duty Engine Oil

Dielectric strength :

A measure of the of insulating properties of electrical insulating oils for use in electrical cables, transformers, circuit breakers, and similar apparatus (Tested by ASTM Method D 877).

Diester oil :

A synthetic Iubricating fluid made from esters: also called ester oil or an organic ester, formed by reacting a dicarboxylic acid and an alcohol; properties include a high viscosity index (V.I.) and low volatility. With the addition of specific additives, it may be used as a lubricant in compressors, hydraulic systems, and internal combustion engines.

DIN :

Deutsche Industrie Norm (German Industrial Standards).

Diolefin :

Highly reactive straight-chain hydrocarbon with two double bonds between adjacent carbon atoms.

Dispersant :

Adispersing agent, which holds a very finely divided substance in a dispersed state in the carrier fluid. Such as sludge or a wear particles in a motor oil.

In engine oil dispersant is additive that helps prevent sludge, varnish, and other engine deposits by keeping particles suspended in a colloidal state (see colloid) within the bulk oil.

Dispersants are normally used in conjunction with detergents.

A dispersant can be distinguished from a detergent in that the former may be non-metallic and thus does not leave an ash when the oil is burned; hence the term ashless dispersant.

Distillate :

Wide range of and any product produced by distillation.

Distillation :

The process of condensing into liquid the vapours distilled from any liquid such as water, petroleum or alcohol. In the petroleum oil industry it is the primary refining step, in which crude oil is separated into fractions, or components, in a distillation tower, or pipe still. Heat, usually applied at the bottom of the tower, causes the oil vapors to rise through progressively cooler levels of the tower, where they condense onto plates and are drawn off in order of their respective condensation temperatures, or boiling points — the lighter-weight, lower-boiling-point fractions, exiting higher in the tower. The primary fractions, from low to high boiling point, are: hydrocarbon gases (e.g., ethane, propane); naphtha (e.g., gasoline); kerosene, diesel fuel (heating oil); and heavy gas oil for cracking. Heavy materials remaining at the bottom are called the bottoms, or residuum, and include such components as heavy fuel oil (fuel oil) and asphaltic substances (see asphalt). Those fractions taken in liquid form from any level other than the very top or bottom are called sidestream products; a product, such as propane, removed in vapor form from the top of the distillation tower is called overhead product. Distillation may take place in two stages: first, the lighter fractions — gases, naphtha, and kerosene — are recovered at essentially atmospheric pressure; next, the remaining crude is distilled at reduced pressure in a vacuum tower, causing the heavy lube fractions to distill at much lower temperatures than possible at atmospheric pressure, thus permitting more lube oil to be distilled without the molecular cracking that can occur at excessively high temperatures.

DKA :

Deutsche Koordinierungsausschuss

Dropping Point :

In general, the dropping point is the temperature at which the grease passes from a semisolid to a liquid state. This change in state is typical of greases containing conventional soap thickeners. Greases containing thickeners other than conventional soaps may, without change in state, separate Oil

Dry Lubricant :

Solid material left between two moving surfaces to prevent metal-to-metal contact, thus reducing friction and wear. Such materials are especially useful in the region of boundary lubrication, and for lubrication under special conditions of extremely high or low temperature where usual lubricants are inadequate. They may be applied in the form of a paste or solid stick, or by spraying, dipping, or brushing in an air-drying carrier which evaporates leaving a dry film. Or can be present in a "sol", a colloidal suspension in Water, Alcohol or Oil.

Some examples of dry lubricants are:

1. graphite
2. molybdenum disulfide (moly)
3. boron nitride
4. plastics such as tetrafluorethylene resins (PTFE or Teflon).

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