

Title (en)  
Process for metal forming.

Title (de)  
Verfahren zum Verformen von Metall.

Title (fr)  
Procédé pour façonner du métal.

Publication  
**EP 0146140 A2 19850626 (EN)**

Application  
**EP 84115695 A 19841218**

Priority  
JP 23782883 A 19831219

Abstract (en)  
A substantially water-free, liquid lubricant for metal forming, which comprises (a) a lubricating oil, and (b) at least one phosphoric acid monoester from the group represented by the general formula: RO-@-(OH)<sub>2</sub> wherein R is alkyl, alkylalkenyl or aryl, and optionally (c) at least one member of the group including fatty acids, fatty acid amides and metal soaps, can form a lubricating film with a good heat resistance and good lubricating properties by virtue of the heat generated by deformation and friction during the forming only by wetting the surface of a metallic workpiece (2) or a die (5) with the liquid lubricant, and can work effectively for prevention of galling. Parts or articles with a higher reduction of area and complicated shape can be readily formed. Furthermore, a film having a lubricating effect equivalent to that of the conventional phosphate coating film can be simply obtained with a great contribution to product cost reduction.

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IPC 8 full level  
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