UDC 621.81

Zhukov A.A., Zhukov V.A., Navoev A.P. Raising the ecological requires and ensuring of reliability of

gears in internal combustion engines // Internal combustion

engines. – 2008. – № 2. – P. 55-59.

Ecological requires claim to internal combustion

engines and to its exhaust emission is continually raising.

Modernization of fuel system and increasing of fuel

injection pressure is the main way to decision this problem.

This article presents results of analyses of exploitation

conditions of gearing drive in different models of

diesel YMZ ,which has different values of fuel injection

pressure and different ecological descriptions. In the

article there are schemes, which is necessary for calculations.

The article presents calculations of torque curves

on the shaft of fuel pump, contact strains and curve

strains in gear train. It is shown, that these strains may

be causes of gear scoring. The article contains recommendation

for increasing of reliability of gears, such as

chemical and thermal treatment or using of new highstrength

material, for example, special cast iron. Tabl. 3.

Il. 4. Bibliogr. 7 names.