

ON THE FINITE GROUPS IN WHICH ANY NONNILPOTENT MAXIMAL SUBGROUP IS A HALL SUBGROUP.

NATALIA V. MASLOVA

A subgroup H of a finite group G is called a Hall subgroup if $(|H|, |G : H|) = 1$.

We say that G is a finite group with maximal Hall subgroups if each maximal subgroup in G is a Hall subgroup.

In [1] finite groups in which any nonnilpotent subgroup is a Hall subgroup were described. Using methods and results of [2, 3, 4, 5] we have proved the following

Proposition. *Let G be a finite group in which any nonnilpotent maximal subgroup is a Hall subgroup. Then G is a solvable group or a nonsolvable group with Hall maximal subgroups described in [3].*

REFERENCES

- [1] V. N. Knyagina, V. S. Monakhov, "Finite groups with nilpotent and Hall subgroups", *Discrete Mathematics and Applications*, Vol. 23, No. 2, 175-182 (2013).
- [2] N. V. Maslova, "Nonabelian composition factors of a finite group whose all maximal subgroups are hall", *Siberian Mathematical Journal*, Vol. 53, No. 5, 853-861 (2012).
- [3] N. V. Maslova, D. O. Revin, "Finite groups whose maximal subgroups have the hall property", *Siberian Advances in Mathematics*, Vol. 23, No. 3, 196-209 (2013).
- [4] V. A. Vedernikov, "Finite groups in which every nonsolvable maximal subgroup is a Hall subgroup", *Trudy Inst. Mat. i Mekh. UrO RAN*, Vol. 19, No. 3, 71-82 (2013) (in Russian).
- [5] E. N. Demina, N. V. Maslova, "Nonabelian composition factors of a finite group with arithmetic constraints to nonsolvable maximal subgroups", *Trudy Inst. Mat. i Mekh. UrO RAN*, Vol. 20, No. 2, 122-134 (2014) (in Russian).

IMM UB RAS, S. KOVALEVSKAYA ST., 16, EKATERINBURG, 620990, RUSSIA
E-mail address: butterson@mail.ru