

STEERING GEAR SERVICE NEWS

DATE : 2011/9/27

No.: E8-11-001A

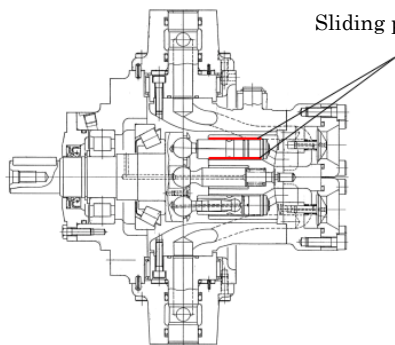
SUBJECT : Maintenance interval of hydraulic pump for steering gear.

The hydraulic pump used in steering gear have sliding components. If you use the pump beyond their wear limits, their efficiency will decrease and in the worst case, the pump will be broken. Therefore, the hydraulic pump needs to be maintained periodically.

1. Target types of steering gear : LV-030, LV-060, LV-090, LV-120, LV-180, LV-260, LV-500
2. Wear limits of sliding components

- Target : The clearance between the piston and the cylinder.

The standard and the recommended replacement clearance which depends on the pump size.



Sliding part between piston and cylinder

Pump size	Standard clearance	Wear limit
LV-030	0.024	0.050
LV-060	0.030	0.060
LV-090	0.033	0.070
LV-120	0.037	0.080
LV-180	0.042	0.090
LV-260	0.048	0.100
LV-500	0.060	0.120

(unit: mm)

- According to our measurement experience during periodical maintenance, the clearance between the piston and the cylinder reach to our wear limit after approximately 5 to 10 years of use, although there are variations among pump sizes.
- If this wear progresses to uneven wear, it may lead to broken of pump. In addition, seal parts, etc. deteriorate over time and it may cause steering malfunctions or problems such as oil leakage. Therefore, we recommend to overhaul steering gear, include main pump every 5 to 7 years.
- Since the state of wear varies greatly depending on the cleanliness of the hydraulic oil, operating environment and operating conditions. Therefore, periodical inspection for the hydraulic oil is recommended.
- The pistons and the cylinders of the hydraulic pump, type LVP017, used in the small size steering gear are manufactured and assembled by controlling the clearance between the pistons and the cylinders for each pump. Therefore, we recommend to replace hydraulic pump, type LVP017, to new one every 5 to 7 years, as it cannot be replaced as each parts.

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