ABSTRACT

Forklift hydraulic is a lift machine which use lift force based on hydraulic system in order to loading transfer. The function of this machine is to transfer a cargo by pull up through lift cylinder and push if through tilt cylinder. This movement was controlled manually by operator.

This final project analyze the maximum load can be transported by lift cylinder. This condition showed the definite pressure are needed by hydraulic pump to accelerate the actuator. Beside that, this final project showed how to maintenance and trouble shooting the forklift hydraulic has done to make the down time more longer when operating the forklift.

Based on the hydraulic system forklift FD30 - 14, data's showed that the maximum lift load at 3682 kgf. While that Fork unit total load at 682 kgf, so the maximum load that can lifted from the cylinder lift device at 3000 kgf. Based on with actual load tilting forward at 5451,02 kgf and actual load tilting backward at 4403,78 kgf. The pump which use on the forklift hydraulic system is external gear pump type SAL/R and the discharge pressure about 210 kg/cm².