

ABSTRACT**COMPACT OPTICAL STORAGE DRIVE**

An optical storage drive provided with a traverse mechanism coupled to a loader mechanism. The traverse mechanism is mounted to the interior of the loader mechanism, and allows the optical pickup unit to read an optical storage device when the optical storage device is loaded into the optical storage drive. The loader mechanism includes a loader sled motor and a loader hypoid gear set having a loader hypoid pinion, a loader hypoid gear and a loader rack bar. Rotational movement of the loader motor is translated into linear movement via the loader hypoid gear set to cause the tray to slide forward or backward. The traverse mechanism contains an OPU hypoid gear set. The OPU hypoid gear set includes a OPU hypoid pinion fixed onto the sled motor, a OPU hypoid gear fixed onto the frame, and a OPU rack bar attached to the optical pickup unit. The OPU hypoid gear set transmits the rotational movement of the sled motor into linear movement of the optical storage unit, whereby the optical storage unit can move across the radius of an optical storage device loaded onto the tray.

FIGURE 3