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(54) Title: ACTIVE ADAPTIVE GYROSTABILISER CONTROL SYSTEM

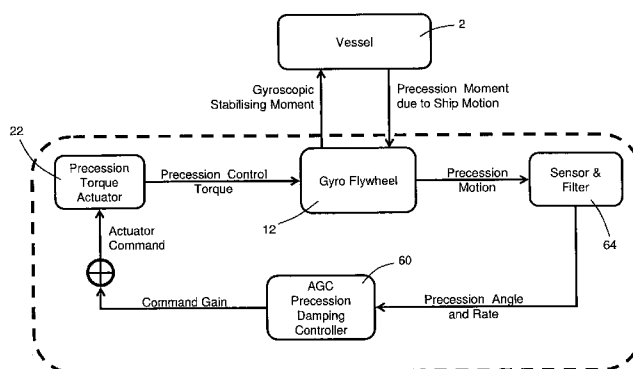


Figure 7

(57) Abstract: A gyrostabiliser control system and method for stabilising marine vessel motion based on precession information only. The control system employs an Automatic Gain Control (AGC) precession controller (60). This system operates with a gain factor that is always being gradually minimized so as to let the gyro flywheel (12) develop as much precession as possible - the higher the precession, the higher the roll stabilising moment. This continuous gain change provides adaptation to changes in sea state and sailing conditions. The system effectively predicts the likelihood of maximum precession being reached. Should this event be detected, then the gain is rapidly increased so as to provide a breaking precession torque. Once the event has passed, the system again attempts to gradually decrease the gain.