MASSON MARINE

Controllable Pitch Propellers
Overview of a CPP installation

1. Cap
2. Propeller blade
3. Yoke
4. Propeller hub
5. Flange
6. Aft sealing system
7. Stern tube
8. Aft bushing
9. Propeller shaft
10. Forward bushing
11. Stern tube lubrication
12. Forward sealing system
13. Pitch control rod
14. Propeller shaft coupling
15. Pitch feedback collar
16. Control rod coupling
17. Hydraulic cylinder
18. Non-return valve
19. Gearbox output
20. Gearbox
21. Fluid circuit
22. Oil distribution box
23. Intermediate shaft
24. Hydraulic pump
25. Electro valve

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Hydraulic circuit

The oil can be sucked directly from the gearbox housing. A twin stage pump is used.

The first stage is for the gearbox pressure and lubrication.
The second stage is for the blades actuation.

An other solution is to use oil coming from an independent hydraulic unit.
Can be fitted with two electric pump in case of classification request.
The complete system is supplied including:

- Stern tube
- White metal bearings
- Fwd and Aft seals

The hollow bored propeller shaft will be fitted with a push pull rod connecting the Servo unit with the mechanism in the hub.
Electronic remote control

- Master Control Panel
- Slave Control Panel
- Wing 1 Control Panel
- Wing 2 Control Panel
- ECR Control Panel
- Electronic Central Unit
- Engine Rpm
- Engine Load
- Shaft Rpm
- Pitch
- DPS or Others
- Clutch
Electronic remote control

- The pitch can be adjusted with constant rpm of the engine. Used with power take off applications.
- In combinator mode, pitch and engine rpm are linked.

Wheelhouse panels with DP Interface (Dynamic Positioning)

Electronic Central Unit with Emergency Telegraph

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Controllable Pitch Propellers
Applications

Passenger boats

Fishing boats

Tankers – General Cargos
Applications

Dredgers

Tugs – Fifi boats

River boats

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Controllable Pitch Propellers
Thanks for your attention