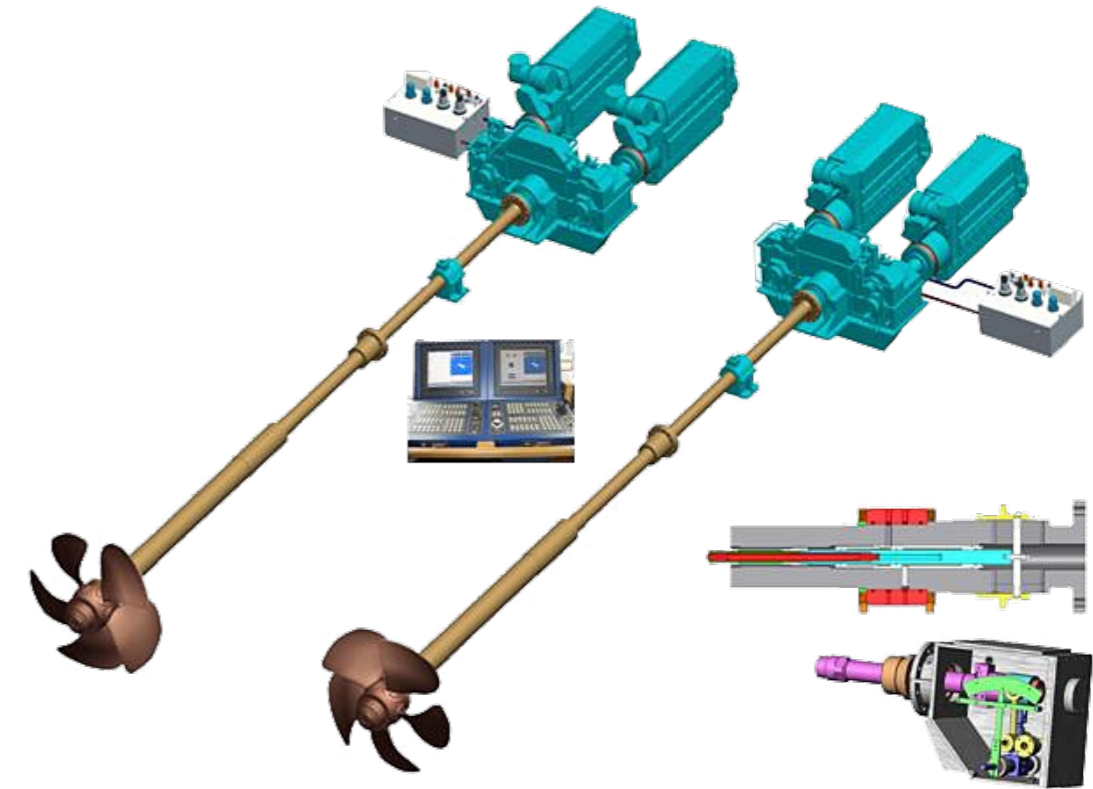


始终做中国船舶配套企业的旗舰

Always be the Flagship of China's Marine Equipment Suppliers

坚定做中国海工装备模块化配套和系统集成 (EPCI) 的先锋

Firmly Be the Pioneer of Ancillary Modulization and Systematic Integration for Ocean Engineering Equipment in China.



## 可调螺距螺旋桨推进系统

Controllable Pitch Propeller Propulsion System

### WUHAN MARINE MACHINERY PLANT CO., LTD.

地址：中国湖北省武汉市青山区武东街9号

成套设备经营部：027-68867018

船舶产品经营部：027-68867127

海洋工程装备经营部：027-68867416/7417

液货产品经营部：027-68867334

国际经营部：027-68867086/7087

技术支持：027-68867389/68867623

传真：027-68867461

邮编：430084

电子邮箱：whcj@wmmp.com.cn

网址：http://www.wmmp.com.cn

Address: No.9, Wudong Street, Qingshan District, Wuhan, Hubei, China

Complete-Set Equipment Business Department: 027-68867018

Marine Product Business Department: 027-68867127

Offshore Equipment Business Department: 027-68867416/7417

Marketing Department of Cargo Pumping System: 027-68867334

International Business Department: 027-68867086/7087

Technical Backup: 027-68867389/68867623

Fax: 027-68867461 Post Code: 430084

E-mail: whcj@wmmp.com.cn

Website: http://www.wmmp.com.cn

V: XXSC2010TJJ-3



# CSSC

## 武汉船用机械有限责任公司

# 简介

## Introduction

武汉船用机械有限责任公司是国内最专业的可调螺距螺旋桨（简称调距桨/ CPP）及推进系统集成配套企业，产品种类齐全，规格型号完整。

结合国外先进技术及实船应用经验，公司自主研发了全系列WP型调距桨，该产品基于标准化、模块化、系列化理念设计，与国外先进技术相当，产品性能达到国外同期先进水平，在国内处于领先地位。与国内同等产品相比，WP型调距桨具有功率重量比高、承载能力强、推进效率高等优点。同时，公司引进了MAN Diesel&Turbo全系列调距桨，获得了WMMP-MAN型调距桨生产许可证。

公司拥有基于主推调距桨的推进系统集成经验，与国内外主要柴油机厂家、齿轮箱厂家、发电机厂家及其他配套厂家建立了良好的合作关系。最近几年，公司在若干工程船、海工船、海洋平台等项目中配套了主推进系统，并赢得了客户的一致好评。

Wuhan Marine Machinery plant Co.,Ltd.(WMMP) is the most professional controllable pitch propeller (CPP) supporting company in China, and its propeller covers the all species and types.

WMMP developed WP type CPP independently based on advanced technology in abroad and the application experience. The product are designed based on the ideal of standardization and modularization and serialization, it reaches foreign advanced technology, and the performance of the product reaches advanced level in abroad, also reaches leading level in domestic. WP type CPP has the excellence of high atio of power to weight、 high carrying capacity、 and good efficiency. Meanwhile, the company introduced Man Diesel&Turbo's full range of CPP, acquired producing WMMP-MAN type CPP license.

WMMP has rich experience of integrating propulsion system based on CPP, WMMP get symbiosis with diesel engine factories、 gearbox factories、 generator factories and other propulsion supporting factories. In recent years, the company equiped propulsion system at sort of working ship、 marine ship、 ocean platform,etc. and these projects win client's good appraise.

# 目录

## Contents

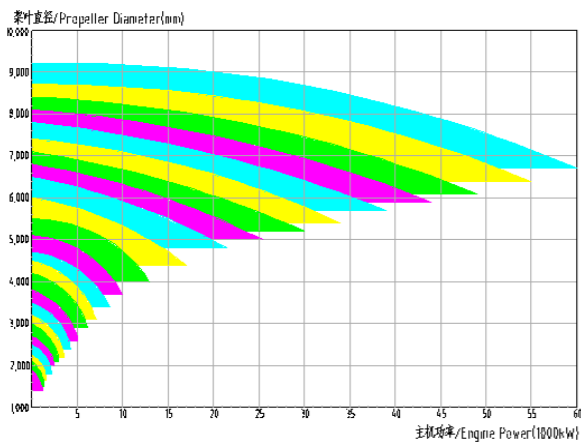
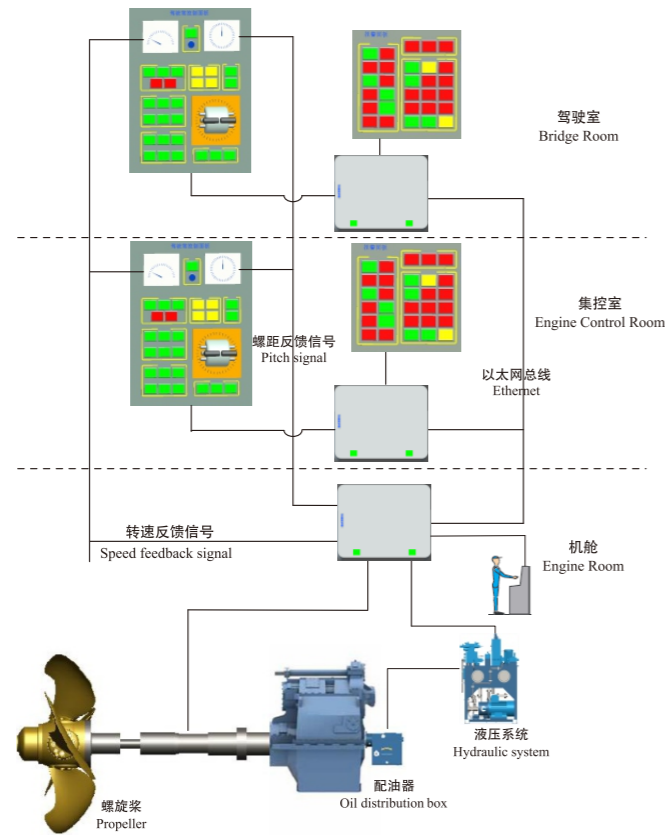
- 01 ◦ WP调距桨型谱 WP CPP Type Series
- 03 ◦ 调距桨桨毂主要尺寸 Main Size of CPP Hub
- 05 ◦ 配油器 Oil Distribution Box
- 06 ◦ 液压系统 Hydraulic System
- 07 ◦ 控制系统 Control System
- 08 ◦ WMMP-MAN调距桨 WMMP-MAN CPP
- 10 ◦ 民品调距桨业绩 Civil CPP Reference List
- 11 ◦ 选型表 Selection Card



# WP调距桨型谱

## WP CPP Type Series

WP型调距桨推进系统由CPP螺旋桨、轴系、配油器、液压系统、控制系统等组成。



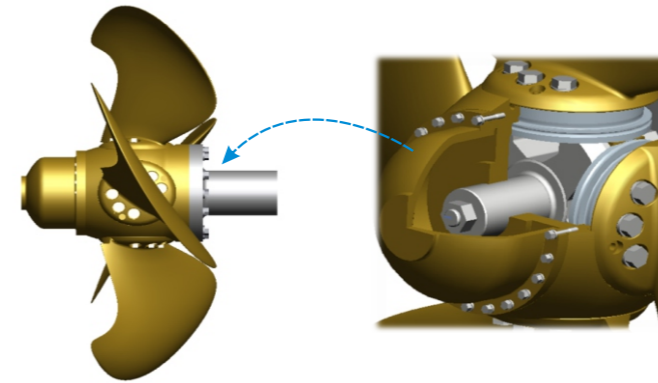
### WP111/4-D2

- 2代表第二代桨毂组件/The second generation
- S代表单油管型 D代表双油管型 P代表推拉杆型  
S is single tube type, D is twin tube type, P is push rod type
- 代表桨叶数/Blade number
- 代表桨毂标准规格cm/Propeller hub type
- 代表推进系统/Propulsion system
- 代表武汉船用机械有限责任公司/WMMMP

桨毂规格	21	24	27	30	33	36	39	42	46	50	55	60	66
	WP/4-D2												
	WP/5-D2												
	WP/4-S2												
	WP/4-P2												

桨毂规格	72	76	79	86	94	102	111	121	132	144	150	157	164	171	179	186	194	202	211	220	230	240	250	
	WP/4-D2																							
	WP/5-D2																							
	WP/4-S2																							
	WP/4-P2																							

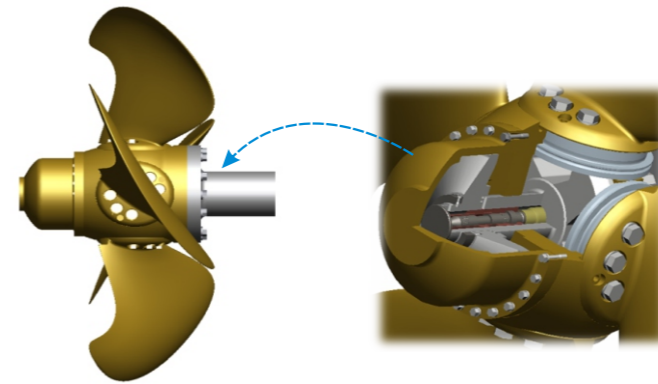
## 推拉杆式调距桨 Push-Pull Rod Type CPP



变距油缸设置在舱室内的轴系上或集成在齿轮箱内部，变距机构通过推拉杆与变距油缸连接。一般适用于中小功率船舶。

Controllable pitch cylinder mounted on the cabin shaft or integrated in gear box, controllable pitch machine connected with cylinder by push-pull rod. It applied in medium or small power ship.

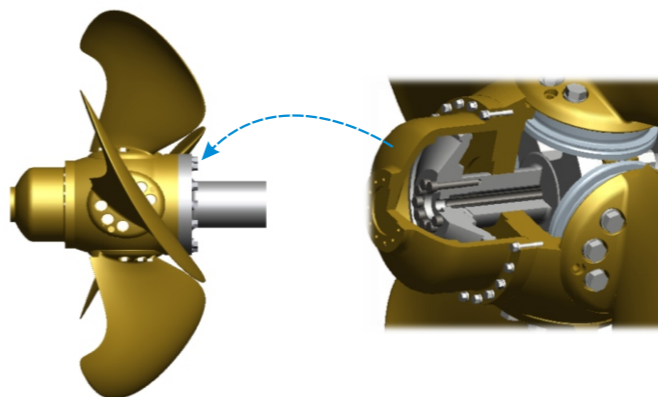
## 单油管式调距桨 Single Tube Type CPP



变距油缸设置在桨毂后端，随动控制阀芯集成设计在桨毂内部，轴内为单层油管。适用于所有功率规模船舶。

Controllable pitch cylinder mounted on the back of hub, servo control valve integrated in the hub, single tube mounted in the hole of shaft. It applied in all scale power ship.

## 双油管式调距桨 Twin Tube Type CPP

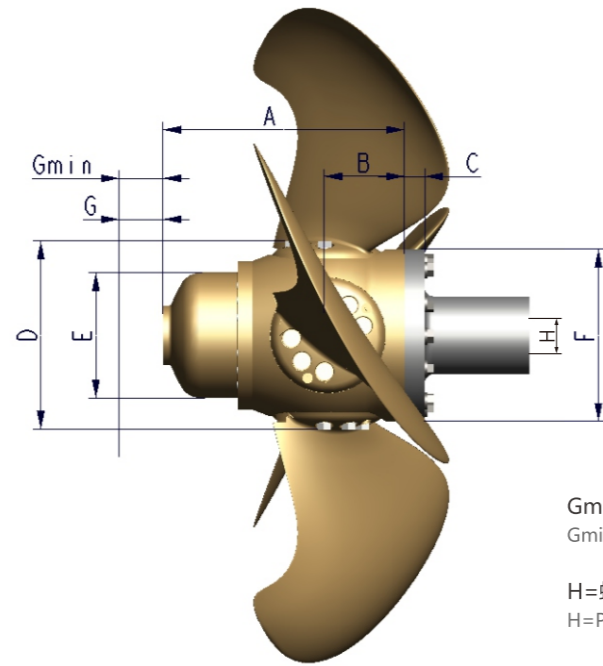


变距油缸设置在桨毂后端，控制阀集成设计在液压系统中，轴内为同心双层油管。适用于所有船舶，尤其有利于抗冲击型和加强型设计。

Controllable pitch cylinder mounted on the back of hub, control valve integrated in hydraulic system, twin tube mounted in the hole of shaft. It applied in all kinds of ships, especially propitious to design of impact resistance and enhanced.

# 调距桨毂主要尺寸

## Main Size of CPP Hub



Gmin=桨毂最小拆卸空间  
Gmin=Minimum distance required for hub dismantling

H=螺旋桨轴或中间轴孔径  
H=Propeller/intermediate shaft bore

## 4叶调距桨主要尺寸 Main Size of 4 Blades CPP

规格/Size	A	B	C	D	E	F	Gmin	H	重量/Weight
21	265	88	21	210	128	190	62	30	120
24	305	100	24	240	145	216	70	35	136
27	344	112	28	270	164	245	80	38	155
30	380	125	30	300	182	270	90	42	170
33	420	138	34	330	200	300	98	46	188
36	458	150	36	360	218	325	106	50	205
39	485	160	40	382	232	345	114	54	216
42	535	175	43	420	255	380	125	60	240
46	585	190	48	460	280	415	130	60	305
50	640	210	53	500	300	463	135	65	395
55	700	220	58	550	330	500	140	65	525
60	755	240	63	600	395	540	145	70	685
66	840	270	65	660	430	595	150	75	905
69	880	285	65	690	450	620	155	80	1006
72	905	295	75	720	475	650	160	80	1180
76	975	315	80	760	510	680	170	90	1388
79	1010	325	83	790	530	705	175	90	1560
86	1100	355	90	860	560	770	190	100	1980
94	1180	375	100	940	610	840	210	100	2625
102	1365	405	110	1020	650	920	230	110	3210
111	1390	440	117	1120	725	1000	240	110	4195

规格/Size	A	B	C	D	E	F	Gmin	H	重量/Weight
121	1535	482	127	1210	770	1090	270	125	5430
132	1654	525	140	1330	860	1180	285	125	6853
144	1810	575	150	1450	950	1290	310	150	8920
150	1910	595	156	1500	955	1335	335	140	11340
157	2000	625	165	1570	1000	1400	350	150	11870
164	2085	655	172	1640	1045	1450	365	150	13465
171	2170	680	180	1710	1090	1500	380	175	15280
179	2270	710	188	1790	1140	1570	400	175	17500
186	2360	740	195	1860	1185	1640	415	175	19650
194	2435	772	205	1940	1245	1710	430	175	22285
202	2535	805	215	2020	1295	1820	450	175	25160
211	2645	840	222	2110	1355	1900	475	200	28670
220	2760	875	230	2200	1410	1980	500	200	32500
230	2885	915	240	2300	1475	2070	520	210	37080
240	3010	955	250	2400	1540	2160	540	220	42070
250	3135	995	260	2500	1605	2250	560	230	47550

## 5叶调距桨主要尺寸 Main Size of 5 Blades CPP

规格/Size	A	B	C	D	E	F	Gmin	H	重量/Weight
60	710	215	63	600	365	560	140	65	590
66	775	235	70	660	400	620	150	65	785
72	830	250	76	720	458	650	160	80	1030
79	920	275	83	790	500	700	175	80	1325
86	1020	302	90	860	546	772	190	95	1705
94	1100	325	97	940	598	840	210	95	2215
102	1180	355	107	1020	650	920	230	110	2850
111	1280	385	117	1110	705	1000	250	110	3655
121	1400	420	127	1210	770	1090	270	125	4700
132	1530	460	138	1320	840	1180	295	125	6145
144	1660	500	150	1440	922	1285	320	146	8000
150	1735	520	158	1500	955	1335	335	140	9745
157	1820	545	165	1570	1000	1400	350	146	10200
164	1854	575	172	1640	1076	1477	365	146	11560
171	1970	595	180	1710	1090	1500	380	175	13250
179	2060	620	188	1790	1140	1570	400	175	15155
186	2140	645	195	1860	1185	1640	415	175	17050
194	2230	675	204	1940	1235	1710	435	175	19270
202	2330	700	212	2020	1285	1820	450	175	21755
211	2430	735	222	2110	1345	1900	470	200	24590
220	2540	765	230	2200	1400	1980	490	200	28120
230	2655	800	240	2300	1465	2070	510	210	32090
240	2770	835	250	2400	1530	2160	530	220	36410
250	2885	870	260	2500	1595	2250	550	230	41160

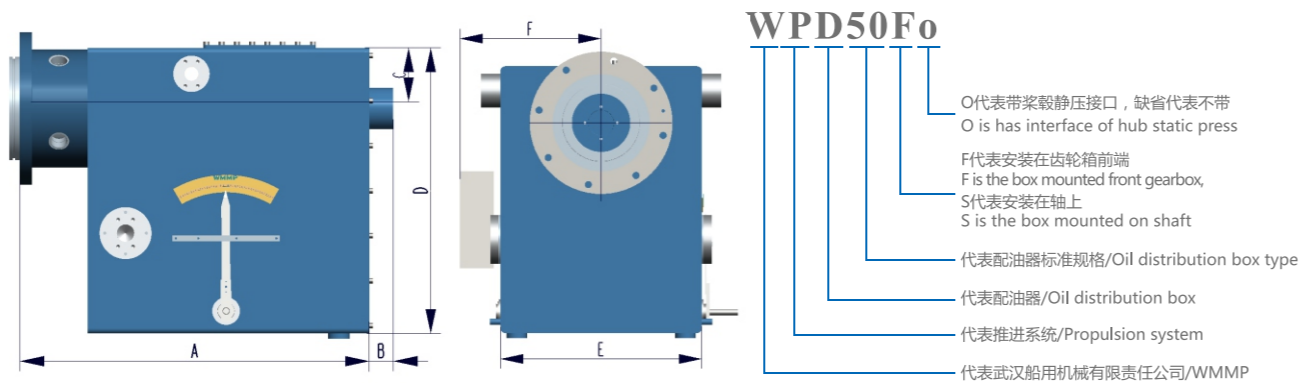
# 配油器

## Oil Distribution Box

配油器是变距油压的注油器，它包括齿轮箱前端配油器和轴式配油器两种。

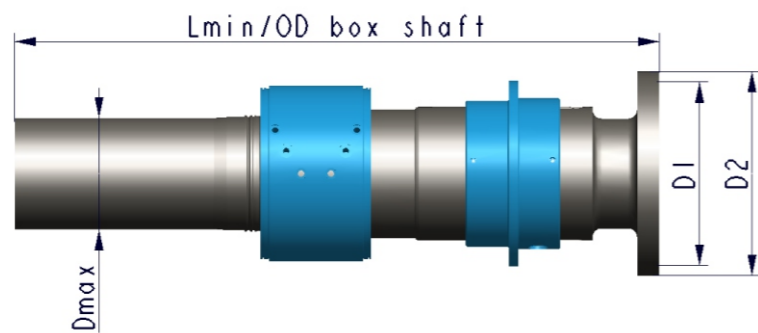
Oil distribution box is an inject oiler, it includes box front gearbox and box on shaft.

齿轮箱前端配油器主要规格尺寸/Main type and size of The oil distribution box front gearbox:



型号/Type	A	B	C	D	E	F	重量/Weight
WPD35Fo	355	121	78	240	210	233	50
WPD50Fo	538	150	105	410	265	260	120
WPD70Fo	730	200	133	595	380	328	208
WPD100Fo	843	250	128.5	680	470	355	420
WPD140Fo	1088	450	175	825	620	430	650

轴式配油器主要规格尺寸/Main type and size of the box on shaft:

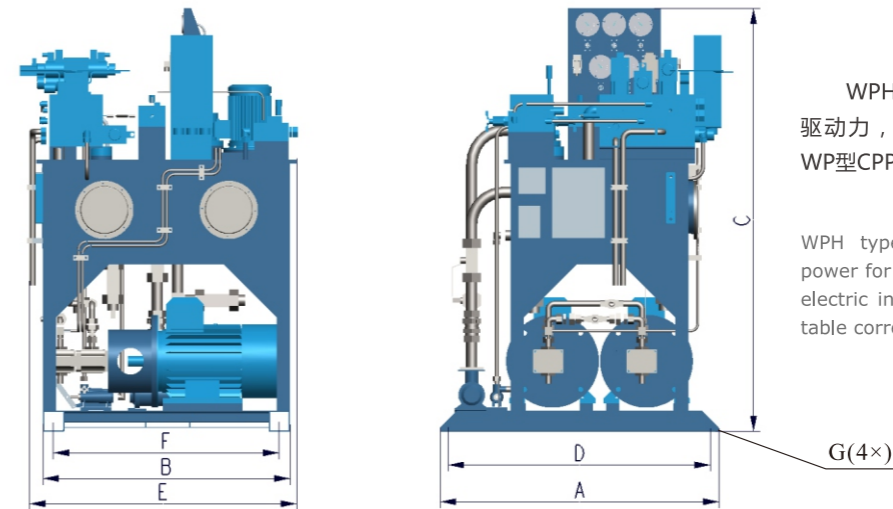


型号/Type	Dmax	D1	D2	Lmin
WPD230So	230	395	450	1500
WPD300So	300	485	550	1620
WPD380So	380	595	685	1910
WPD450So	450	695	795	2140
WPD550So	550	830	950	2400
WPD620So	620	930	1100	3000
WPD700So	700	1080	1240	3200

# 液压系统

## Hydraulic System

液压系统主要规格、尺寸/Main type and size of hydraulic system:



WPH型液压系统主要作用是调距桨变距提供驱动力，并根据螺距指令控制桨叶螺距变化。与WP型CPP对应，形成了完善的型谱。

WPH type hydraulic system provide CPP driving power for changing pitch, and control pitch based on electric instruction. It has developed complete type table corresponding to CPP.

### WPH150

序号 No.	规格 Size	主油箱容积(L) Main Oil Tank Volume	适用桨毂标准规格 Apply for Propeller Hub Type
1	150	~150	21-79
2	300	~300	86-102
3	500	~500	111-121
4	700	~700	132-144
5	1000	~1000	150-250

型号/Type	A	B	C	D	E	F	G	最小维修空间 Min Service Space	干量 Weight without Oil	含油重量 Weight with Oil
WPH150	1060	720	1360	980	825	650	Φ22	1500	1000	1110
WPH300	1120	930	1510	1060	1130	830	Φ22	1750	1200	1420
WPH500	1360	1090	1620	1240	1220	990	Φ22	1800	1350	1700
WPH700	1360	1090	1780	1240	1420	990	Φ22	1950	1450	1950
WPH1000	1580	1700	1855	1380	1850	1600	Φ22	2025	2240	3137

# 控制系统

## Control System

TRCS型控制系统采用基于分布式以太网现场总线技术的PLC型控制系统，可对调距桨的螺距和主机转速进行实时控制，并配备有独立的监测报警系统。同时，为适应不同船型的控制需求，本系统还留有DP/JC接口及VDR接口等。

TRCS type control system is an control system based on PLC. The system can control both Pitch and RPM(Revolutions Per Minute) of main engine at real time, and equips independent monitor and alarm system. Meanwhile, there are interfaces of DP/JC interface and VDR interface in the system for different types of vessels.



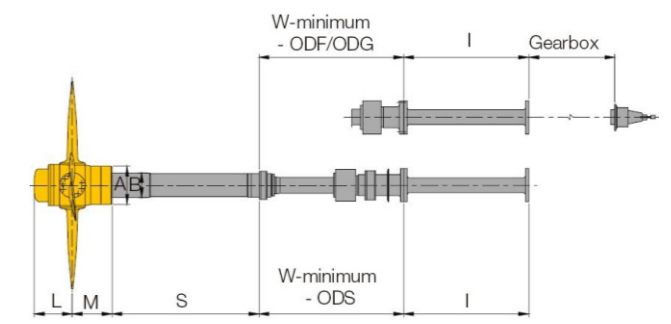
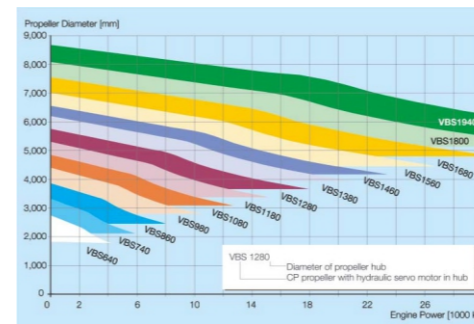
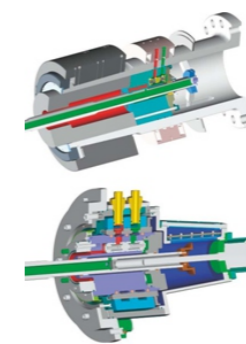
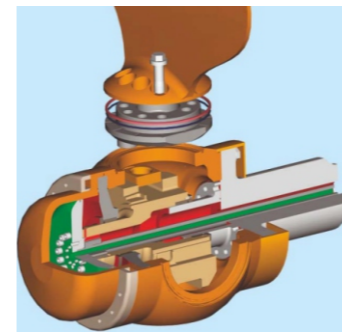
### TRCS/BAWE

代表本遥控系统具备的控制位置/Control location:P代表机旁/P is machine side,  
W代表两翼/W is two wing, E代表集控室/E is engine control room, B代表驾驶室/R is cab,  
A代表后驾驶室/A is AFT cab  
代表操作系统/Control system  
代表可调距螺旋桨装置/ CPP

序号 No.	系列 Series	典型配置 Typical Configurations	典型功能 Typical Functions
1	TRCS/P	螺距控制单元 Pitch control unit	□□□□□□□□□□□□□□□□□□□□ Pitch closed loop□Back-up control□pitch and shaft rev display.
2	TRCS/B	驾驶室、机旁控制 Cab and machine side control	螺距闭环、备用控制、螺距及桨轴转速指示、驾驶室控制、机桨联合操控、分控、负荷控制等。 Pitch closed loop, Back-up control, pitch and shaft rev display, cab control, engine and propeller control of unite, disjoin or load control.
3	TRCS/BWE	驾驶室、驾驶室两翼、集控室及机旁控制 Cab, cab of two swing, engine control room and machine side control	螺距闭环、备用控制、螺距及桨轴转速指示、DP/JC、FIFI、驾驶室控制、集控室控制、驾驶室两翼控制及指示、机桨联合操控、分控、负荷控制等。 Pitch closed loop, Back-up control, pitch and shaft rev display, DP/JC, FIFI, cab control, engine control room control, cab of two swing control and display, engine and propeller control of unite, disjoin or load control.
4	TRCS/BAWE	前、后驾驶室、驾驶室两翼、集控室及机旁控制 INT and AFT cab, cab of two swing, engine control room and machine side control	螺距闭环、备用控制、螺距及桨轴转速指示、DP/JC、FIFI、驾驶室控制、集控室控制、驾驶室两翼控制及指示、机桨联合操控、分控、负荷控制等。 Pitch closed loop, Back-up control, pitch and shaft rev display, DP/JC, FIFI, cab control, engine control room control, cab of two swing control and display, engine and propeller control of unite, disjoin or load control.

# WMMP-MAN调距桨

## WMMP-MAN CPP



规格/Size			Max shaft Diameter	A	*B	L	*M	*W-min ODS	*W-min ODG	F ODF
Hub	ODS/ODG	ODF								
640	180	180	270	500	330	491	604		1616	780
640	200	180	270	500	355	491	604		1316	780
640	225	180	270	500	380	491	604	2096	1331	780
740	220	180	307	580	355	569	661		1316	780
740	225	180	307	580	385	569	661	2096	1331	780
740	250	180	307	580	415	569	661	2231	1402	780
740	280	180	307	580	420	569	681	2352	1522	780
860	225	180	364	670	385	653	722	2096	1331	780
860	250	180	364	670	415	653	722	2231	1401	780
860	280	180	364	670	455	653	742	2352	1522	780
860	310	180	364	670	475	653	747	2367	1557	780
860	330	180	364	670	475	653	747	2482	1629	780
980	250	180	416	760	435	746	794	2231	1401	780
980	280	180	416	760	475	746	814	2352	1522	780
980	310	180	416	760	510	746	819	2367	1557	780
980	330	180	416	760	535	746	844	2482	1629	780
980	350	180	416	760	550	746	844	2503	1650	780
980	375	180	416	760	550	746	844	2578	1698	780
1080	280	220	458	840	475	821	890	2352	1522	820
1080	310	220	458	840	510	821	895	2367	1557	820
1080	330	220	458	840	535	821	920	2482	1629	820
1080	350	220	458	840	560	821	920	2503	1650	820

# 民品调距桨近年来主要应用业绩(2010-2015)

## Civil CPP Reference List (2010-2015)

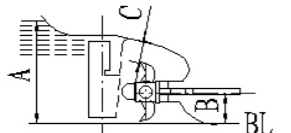
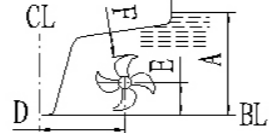
规格/Size			Max shaft Diameter	A	*B	L	*M	*W-min ODS	*W-min ODG	F ODF
Hub	ODS/ODG	ODF								
1080	375	220	458	840	590	821	920	2578	1698	820
1080	400	220	458	840	590	821	920	2618	1738	820
1180	310	220	502	915	530	885	947	2367	1557	820
1180	330	220	502	915	555	885	972	2482	1629	820
1180	350	220	502	915	580	885	972	2503	1650	820
1180	375	220	502	915	610	885	972	2578	1698	820
1180	400	220	502	915	640	885	972	2618	1738	820
1180	425	220	502	915	655	885	972	2643	1778	820
1180	450	220	502	915	655	885	972	2691	1831	820
1280	350	270	560	1000	580	957	1025	2503	1650	910
1280	375	270	560	1000	610	957	1025	2578	1698	910
1280	400	270	560	1000	640	957	1025	2618	1738	910
1280	425	270	560	1000	670	957	1050	2643	1778	910
1280	450	270	560	1000	700	957	1050	2691	1831	910
1280	475	270	560	1000	710	957	1050	2701	1881	910
1380	375	270	578	1070	610	1030	1081	2578	1698	910
1380	400	270	578	1070	640	1030	1081	2618	1738	910
1380	425	270	578	1070	670	1030	1096	2648	1778	910
1380	450	270	578	1070	700	1030	1096	2691	1831	910
1380	475	270	578	1070	730	1030	1101	2701	1881	910
1380	510	270	578	1070	730	1030	1101	2923	1913	910
1460	400	270	612	1130	650	1100	1121	2618	1738	910
1460	425	270	612	1130	680	1100	1136	2648	1778	910
1460	450	270	612	1130	710	1100	1136	2691	1831	910
1460	475	270	612	1130	740	1100	1141	2701	1881	910
1460	510	270	612	1130	775	1100	1141	2923	1913	910
1460	560	270	612	1130	775	1100	1141	3001	1966	910
1560	425	315	650	1210	680	1175	1197	2648	1778	1000
1560	450	315	650	1210	710	1175	1197	2691	1831	1000
1560	475	315	650	1210	740	1175	1202	2701	1881	1000
1560	510	315	650	1210	785	1175	1202	2923	1913	1000
1560	560	315	650	1210	810	1175	1237	3001	1966	1000
1560	600	315	650	1210	810	1175	1237	3101	2051	1000
1680	450	315	727	1295	720	1278	1274	2691	1831	1000
1680	475	315	727	1295	750	1278	1279	2701	1881	1000
1680	510	315	727	1295	795	1278	1279	2923	1913	1000
1680	560	315	727	1295	855	1278	1314	3001	1966	1000
1680	600	315	727	1295	900	1278	1344	3101	2051	1000
1800	510	365	764	1390	795	1367	1332	2923	1913	1120
1800	560	365	764	1390	855	1367	1367	3001	1966	1120
1800	600	365	764	1390	905	1367	1397	3101	2051	1120
1940	510	365	826	1500	805	1458	1412	2923	1913	1120
1940	560	365	826	1500	865	1458	1447	3001	1966	1120
1940	600	365	826	1500	915	1458	1477	3101	2051	1120

\*Guiding approx dimnsion

序号 No.	船型 Ship Type	船东 Ship Owner	主机功率/桨叶直径 Power/Blade Diameter	船舶数量 No. of Ship	船级社 Classification
1	4000DWT□□□□ 4000DWT multi purpose ship	德国 ALIX MARINE ENGINEERING CO., LTD	1800kW, D=2500mm	5	GL(E2)
2	500□□□□□ 500 DWT fisheries Ad ship	上海市渔政监督管理处	2640kW, D=2500mm	1	ZY
3	5400DWT□□□□ 5400DWT multi purpose ship	德国 ALIX MARINE ENGINEERING CO., LTD	1845kW, D=2500mm	10	GL(E2)
4	72m□□□□□ 72m platform supply vessel	浙江浩驰疏浚有限公司	2×2665kW, D=3400mm	2	CCS
5	45m□□□□□ 45m NanSha fire ship	广州消防局	2×2424kW, D=2180mm	1	CCS
6	78m□□□□□ 78m AHTS	浙江民龙海洋船务有限公司	4×2206kW, D=3700mm	2	CCS
7	78m□□□□□□□□ 78m multi purpose supply ship	东方华晨有限公司 中海油服股份有限公司	推进与动力定位系统集成 2×4500kW, D=3900mm	4	CCS
8	5000□□□□□ 5000 DWT surveillance ship	中国海监总队	2×7000kW, D=3850mm	4	CCS
9	1000□□□□□ 1000 DWT fisheries Ad ship	南海、广西渔政局	5170kW, D=3400mm	6	ZY
10	50000□□□□□ 50000 DWT semi submersible ship	香港信群集团	推进系统集成 9660kW, D=5900mm	2	ABS
11	□□□□□ ChangJiang rescue ship	长江海事局	推进系统集成 2×373kW, D=1650mm	5	CCS
12	□□□□□□ Ocean multi purpose ship	中石油唐山应急中心	2×2190kW, D=2900mm	1	CCS(B1)
13	64.8m□□□□□□□□ 64.8m oil field platform ship	广东旭日海运有限公司	推进系统集成 2×2190kW, D=3100mm	5	CCS
14	1200□□□□□ 1200 DWT Transport ship	某车船局	2×5840kW, D=2850mm	1	CCS
15	□□□□□ Some type patrol ship	某边防部队	4×5184kW, D=3800mm	7	CCS
16	690吨级船 690 DWT ship	俄罗斯 Russia	2×2900kW, D=2200mm	2	RS

# 武汉船用机械有限责任公司CPP技术设计数据表

## Selection Card for WMMP CPP

船东/ship owner:						
船厂/shipyard:				船厂代号/Yard no.:		
船型/ship type:			船名/ship name:			
船级社*/ Classification society:		船级/Class of ship:		冰级*/Ice class:		机舱无人看管时间间隔 <input type="checkbox"/> 是/Yes _____小时/hour <input type="checkbox"/> 否/No
垂线间长 L <sub>PP</sub> Length PP m	水线长 L <sub>WL</sub> Length at WL m	尾吃水 T <sub>A</sub> Draught aft m	首吃水 T <sub>F</sub> Draught fore m	水线面宽 B Breadth at WL m	排水量⊗ Displacement m.t	载重量 Deadweight m.t.
水线面积系数/ Waterplane coefficient $C_{WP} = \frac{A_W}{L_{WL} * B} =$		中剖面面积系数/ Midship coefficient $C_M = \frac{A_M}{B * T} =$		方形系数/ Block coefficient $C_B = \frac{\text{⊗}}{L * B * T} =$		实效伴流系数 Eff. Wake
导管桨*/ Propeller operating in nozzle <input type="checkbox"/> 是/yes <input type="checkbox"/> 否/no		导管型式/ Type of nozzle <input type="checkbox"/> 可转动/ Rudder <input type="checkbox"/> 固定/ Fixed		螺旋桨最大允许直径*/ Max. permissible propeller dia. mm		
单桨布置 Single screw installation 			双桨布置 Twin screw installation 			
A (满载/ Loaded) = mm	A (空载/ Ballast) = mm	B= mm	C= mm	D= mm	E= mm	F= mm
<input type="checkbox"/> 自航试验结果/ Wake and self propulsion test report available						
<input type="checkbox"/> 船模 (或母型船) 试验结果/ Results from model tests						
航速/speed kn						
有效功率 Effective power kW						
伴流系数 Taylor wake fraction						
推力减额分数 Thrust deduction fraction						
相对旋转效率 Relative rotative efficiency						
旧船改装原桨数据 Old ship refit data	螺旋桨直径 Blade diameter	螺距比 Pitch ratio	盘面比 Expanded blade area ratio	桨叶数 No. of blades		
单桨船/ Single propeller ship <input type="checkbox"/> 左旋/ Left hand rotating <input type="checkbox"/> 右旋/ Right hand rotating		WMMP 推荐使用左旋桨 WMMP recommend Left hand rotating propeller		后艉轴密封型式及制造厂 AFT Sealing type		
双桨船/ Twin propeller ship <input type="checkbox"/> 内旋/ Inward rotating <input type="checkbox"/> 外旋/ Outward rotating		轴系润滑型式*/ Shaft lubrication type <input type="checkbox"/> 油润滑/ Oil-lubricated <input type="checkbox"/> 水润滑/ Water-lubricated		舵数量 No. of rudders		前艉轴密封型式及制造厂 INT Sealing type
WMMP 技术支持/WMMP technical support: TEL:027-68867390 EMAIL: mancpp@126.com / whcj@wmmp.com.cn						

说明: 1. 填表人在选择项目前面的“□”内用“☑”表示需要项目; 2.\*表示方案设计阶段必填技术输入项; 3. 所有未填写部分技术参数按 WMMP 常规设计。  
Illustration: 1. please tick in □ to express information. 2.\*should be supplied in the initial design; 3.All the other blank technical parameter will be designed according to WMMP standard.

# 武汉船用机械有限责任公司CPP技术设计数据表

## Selection Card for WMMP CPP

主机型号及制造厂 Make and type of Main engine		传动方式*/ Type of machinery <input type="checkbox"/> 直接驱动+联轴节/Direct coupled <input type="checkbox"/> 齿轮箱/Geared		可反转/ Reverse or not <input type="checkbox"/> 是/Yes <input type="checkbox"/> 否/No	
主机/ Main engine <input type="checkbox"/> 4冲程/4 Stroke <input type="checkbox"/> V型/V type <input type="checkbox"/> 2冲程/2 Stroke <input type="checkbox"/> 直列式/In-line		汽缸数 No. of cylinders		工作方式/ Acting <input type="checkbox"/> 单作用/Single <input type="checkbox"/> 双作用/Double	
主机联轴节型式及制造厂 (液压、弹性等) Make and type of couplings (hydraulic, flexible etc.)		减速箱型号及制造厂 Make and type of reduction gear		减速箱速比 Gear ratio	
航行时是否通常减少主机数量 Running on reduced no. of engines normally occurs <input type="checkbox"/> 是/Yes <input type="checkbox"/> 否/No		如果是, 使用情况和范围 If yes, circumstances and extent			
状态 Condition	主机功率* PB Engine (kW)	螺旋桨收到功率 PD (kW) Propeller	主机转速* Engine RPM	螺旋桨转速 Propeller RPM	试航航速 kn Trial speed
CSR (使用工况)					服务航速* kn Service speed
MCR (额定工况)					
Overload (超负荷工况) ____小时/hour					
预计机械损耗/Estimate machinery loss %		船舶运行分布 (可选项/ Distributing of circulating)			
轴带发电机*/With shaft generator or not <input type="checkbox"/> 是/Yes <input type="checkbox"/> 否/No		发电机功率消耗/ Generator power consume			
调速器制造厂/ Governor make		调速器型号/ Governor type		联控转速限制范围/Blocked area within Combinator range <input type="checkbox"/> 是/Yes, ____rpm to ____rpm <input type="checkbox"/> 否/No	
转速控制/RPM control 气压/Pneumatic range kPa		主机最高转速/ Max engine speed rpm kPa		主机惰转转速/ Idle engine speed rpm kPa	
电压/Voltage range V DC		rpm V DC		rpm V DC	
电流/Current Range mA DC		rpm mA DC		rpm mA DC	
WMMP 负荷控制燃油泵传感器安装型式/Mounting type of load control oil pump sensor <input type="checkbox"/> 支架式/ Trestle <input type="checkbox"/> 法兰式/Flange					
油泵电机电源电压/ Main voltage for pump motors ____ V 三相 ____ Hz <input type="checkbox"/> DC		油泵电机起动机控制电压/ Control voltage for pump motor starters ____ V 一相 ____ Hz <input type="checkbox"/> DC			
遥控系统电源电压*/Control system voltage V DC		控制面板照明电源电压/ Control panel lighting voltage V DC			
备用控制系统电源电压/Standby Control system voltage V DC		指示系统电源电压/Indicated system voltage V DC			
驾驶室控制台安装位置/ Cab Control panel' s mounting position <input type="checkbox"/> 室内/Indoor <input type="checkbox"/> 室外/Outdoor					
填表人签名/Sign:		电话/TEL:		日期/Date:	
WMMP 技术支持/WMMP technical support: TEL:027-68867390 EMAIL: mancpp@126.com / whcj@wmmp.com.cn					

售前服务电话 Before-sale service phone: 027-68867334 售前服务邮箱 Before-sale service email: tjxtyb@wmmp.com.cn/mancpp@126.com  
售后服务热线 After-sales service: 400-1111461 保修 Guarantee claim: afterservice-bx@wmmp.com.cn  
调试 Commission test: afterservice-ts@wmmp.com.cn 询价 Inquiry: afterservice-xj@wmmp.com.cn