Table 4.13 Measured Data of Propeller Open Characteristics of DTMB Propeller by Using H38 in Cavitation Tunnel

MPNo.341;DTMB Prop. by H38
n=40rps, Tw=10°C
$\alpha / \alpha s = 0.32$

NON-CAV.

J	Kt	10Kq	ηo
0.385	0.272	0.454	0.367
0.437	0.254	0.435	0.406
0.488	0.237	0.416	0.442
0.539	0.219	0.396	0.474
0.590	0.199	0.374	0.500
0.641	0.181	0.354	0.522
0.692	0.164	0.328	0.551
0.744	0.145	0.306	0.561
0.775	0.133	0.292	0.562
0.795	0.125	0.282	0.561
0.846	0.105	0.259	0.546
0.896	0.083	0.233	0.508
0.948	0.059	0.205	0.434
0.998	0.035	0.176	0.316

σ v=0.6

J	Kt	10Kq	ηo
0.546	0.093	0.198	0.408
0.664	0.114	0.197	0.612
0.694	0.133	0.234	0.628
0.745	0.133	0.242	0.652
0.775	0.120	0.228	0.649
0.795	0.107	0.212	0.639
0.897	0.074	0.176	0.600
0.947	0.048	0.141	0.513
1.000	0.009	0.081	0.177

σ v=0.4

J	Kt	10Kq	ηo
0.775	0.111	0.208	0.658
0.796	0.104	0.200	0.659
0.846	0.085	0.178	0.643
0.896	0.063	0.148	0.607
0.950	0.032	0.101	0.479
1.000	0.005	0.054	0.147

σ v=1.0

J	Kt	10Kq	ηo
0.543	0.120	0.205	0.506
0.592	0.133	0.229	0.547
0.643	0.138	0.241	0.586
0.693	0.142	0.253	0.619
0.743	0.138	0.256	0.637
0.774	0.129	0.248	0.641
0.795	0.122	0.242	0.638
0.845	0.102	0.219	0.626
0.897	0.078	0.193	0.577
0.947	0.053	0.162	0.493
0.999	0.025	0.128	0.311

σ v=0.5

J	Kt	10Kq	ηo
0.694	0.120	0.210	0.631
0.745	0.123	0.224	0.651
0.774	0.120	0.224	0.660
0.795	0.114	0.217	0.665
0.845	0.096	0.197	0.655
0.897	0.071	0.165	0.614
0.948	0.043	0.126	0.515
1.000	0.004	0.062	0.103

Table 4.14 Measured Data of Propeller Open Characteristics of SSPA Propeller by Using J26 in Cavitation Tunnel

MPNo.345;SSPA Prop. by J26
n=40rps, Tw=11°C
$\alpha / \alpha s = 0.30$

NON-CAV.

J	Kt	10Kq	ηo
0.990	0.321	0.877	0.576
1.040	0.301	0.836	0.596
1.090	0.280	0.795	0.611
1.141	0.260	0.755	0.625
1.193	0.241	0.715	0.640
1.244	0.223	0.679	0.650
1.294	0.206	0.642	0.661
1.345	0.191	0.607	0.673
1.395	0.172	0.567	0.674

σ v=1.0

J	Kt	10Kq	ηo
0.792	0.208	0.555	0.472
0.841	0.220	0.582	0.506
0.891	0.230	0.607	0.538
0.942	0.239	0.630	0.568
0.992	0.246	0.649	0.598
1.042	0.252	0.662	0.631
1.091	0.254	0.673	0.655
1.143	0.240	0.655	0.666
1.193	0.222	0.630	0.669
1.244	0.209	0.613	0.675
1.294	0.199	0.598	0.686
1.345	0.188	0.577	0.697
1.396	0.169	0.538	0.698

σ v=0.6

J	Kt	10Kq	ηo
0.793	0.175	0.471	0.469
0.843	0.176	0.475	0.497
0.893	0.177	0.480	0.524
0.943	0.183	0.495	0.555
0.993	0.193	0.518	0.589
1.043	0.200	0.534	0.622
1.093	0.207	0.551	0.654
1.143	0.210	0.561	0.681
1.194	0.206	0.560	0.699
1.245	0.185	0.529	0.693
1.295	0.180	0.532	0.697
1.345	0.183	0.545	0.719
1.396	0.165	0.510	0.719

σ v=0.5

J	Kt	10Kq	ηo
0.793	0.170	0.461	0.465
0.843	0.171	0.466	0.492
0.893	0.171	0.469	0.518
0.944	0.171	0.471	0.545
0.994	0.172	0.477	0.570
1.044	0.181	0.496	0.606
1.094	0.188	0.509	0.643
1.144	0.193	0.518	0.678
1.194	0.195	0.530	0.699
1.244	0.178	0.504	0.699
1.295	0.172	0.502	0.706
1.346	0.182	0.534	0.730
1.395	0.168	0.507	0.736

σ v=0.4

J	Kt	10Kq	ηo
0.793	0.167	0.453	0.465
0.842	0.167	0.456	0.491
0.894	0.166	0.456	0.518
0.944	0.166	0.456	0.547
0.994	0.164	0.453	0.573
1.044	0.163	0.454	0.597
1.094	0.167	0.461	0.631
1.145	0.173	0.476	0.662
1.195	0.176	0.488	0.686
1.245	0.170	0.484	0.696
1.295	0.161	0.469	0.708
1.345	0.175	0.511	0.733
1.396	0.157	0.473	0.737

Table 4.15　Measured Data of Propeller Open Characteristics of SSPA Propeller by Using H38 in Cavitation Tunnel

MPNo.345;SSPA Prop. by H38
n=40rps, Tw=10°C
$\alpha / \alpha s = 0.28$

NON-CAV.

J	Kt	10Kq	ηo
0.990	0.326	0.886	0.580
1.040	0.303	0.841	0.597
1.090	0.281	0.798	0.611
1.141	0.259	0.755	0.623
1.194	0.237	0.712	0.633
1.245	0.218	0.675	0.640
1.295	0.201	0.636	0.652
1.346	0.182	0.596	0.654
1.396	0.162	0.552	0.652

$\sigma v = 1.0$

J	Kt	10Kq	ηo
0.792	0.210	0.558	0.475
0.841	0.221	0.587	0.504
0.890	0.230	0.609	0.535
0.942	0.238	0.630	0.566
0.993	0.246	0.647	0.601
1.042	0.252	0.665	0.628
1.092	0.254	0.675	0.654
1.143	0.233	0.648	0.654
1.195	0.216	0.624	0.658
1.244	0.201	0.604	0.659
1.297	0.188	0.586	0.662
1.346	0.176	0.562	0.671
1.396	0.154	0.525	0.652

$\sigma v = 0.6$

J	Kt	10Kq	ηo
0.792	0.181	0.468	0.488
0.843	0.182	0.470	0.519
0.893	0.185	0.478	0.550
0.943	0.188	0.488	0.578
0.993	0.194	0.506	0.606
1.043	0.199	0.521	0.634
1.092	0.204	0.537	0.660
1.144	0.207	0.548	0.687
1.194	0.193	0.535	0.686
1.246	0.176	0.510	0.684
1.295	0.168	0.497	0.697
1.347	0.162	0.498	0.697
1.397	0.147	0.468	0.698

$\sigma v = 0.5$

J	Kt	10Kq	ηo
0.793	0.176	0.458	0.485
0.842	0.178	0.461	0.517
0.892	0.177	0.463	0.543
0.943	0.177	0.466	0.570
0.994	0.179	0.473	0.598
1.045	0.183	0.485	0.627
1.093	0.188	0.501	0.653
1.144	0.191	0.510	0.682
1.194	0.187	0.517	0.688
1.245	0.169	0.491	0.682
1.296	0.156	0.470	0.684
1.346	0.148	0.465	0.682
1.396	0.143	0.459	0.692

$\sigma v = 0.4$

J	Kt	10Kq	ηo
0.843	0.174	0.452	0.516
0.893	0.173	0.453	0.543
0.945	0.172	0.452	0.572
0.994	0.170	0.448	0.600
1.044	0.168	0.446	0.626
1.093	0.168	0.450	0.650
1.145	0.173	0.464	0.679
1.195	0.174	0.472	0.701
1.245	0.156	0.452	0.684
1.296	0.143	0.432	0.683
1.345	0.136	0.423	0.688
1.396	0.135	0.432	0.694

Table 4.16 Measured Data of Propeller Open Characteristics of SRIJ-I Propeller by Using J26 in Cavitation Tunnel

MPNo. 354;SRIJ-I Prop. by J26
n=40rps, Tw=21°C
$\alpha / \alpha s = 0.28$

NON-CAV.

J	Kt	10Kq	ηo
0.940	0.344	0.890	0.578
0.989	0.324	0.849	0.601
1.040	0.303	0.808	0.621
1.091	0.283	0.765	0.642
1.141	0.265	0.728	0.661
1.193	0.248	0.695	0.678
1.243	0.232	0.662	0.693
1.294	0.217	0.630	0.709
1.343	0.201	0.597	0.720
1.395	0.185	0.562	0.731
1.446	0.170	0.531	0.737
1.496	0.154	0.498	0.736
1.597	0.115	0.415	0.704

σ v=1.0

J	Kt	10Kq	ηo
0.691	0.202	0.520	0.427
0.790	0.236	0.597	0.497
0.840	0.247	0.623	0.530
0.890	0.258	0.648	0.564
0.941	0.264	0.665	0.595
0.991	0.267	0.675	0.624
1.042	0.260	0.669	0.645
1.092	0.236	0.633	0.648
1.143	0.218	0.604	0.657
1.194	0.202	0.579	0.663
1.244	0.193	0.569	0.672
1.294	0.201	0.595	0.696
1.294	0.206	0.608	0.698
1.344	0.188	0.572	0.703
1.396	0.176	0.545	0.717
1.446	0.165	0.521	0.729
1.496	0.150	0.490	0.729
1.597	0.105	0.394	0.677

σ v=0.6

J	Kt	10Kq	ηo
0.693	0.174	0.453	0.424
0.743	0.179	0.467	0.453
0.792	0.183	0.478	0.483
0.842	0.186	0.488	0.511
0.892	0.194	0.508	0.542
0.943	0.201	0.525	0.575
0.993	0.212	0.550	0.609
1.042	0.219	0.563	0.645
1.092	0.221	0.569	0.675
1.143	0.205	0.547	0.682
1.195	0.179	0.503	0.677
1.245	0.162	0.477	0.673
1.295	0.157	0.471	0.687
1.346	0.164	0.502	0.700
1.395	0.161	0.501	0.713
1.447	0.147	0.474	0.714
1.497	0.130	0.445	0.696
1.598	0.062	0.315	0.501

σ v=0.5

J	Kt	10Kq	ηo
0.741	0.174	0.451	0.455
0.792	0.178	0.462	0.486
0.842	0.179	0.468	0.513
0.892	0.180	0.473	0.540
0.943	0.182	0.479	0.570
0.994	0.190	0.497	0.605
1.044	0.198	0.515	0.639
1.093	0.205	0.529	0.674
1.144	0.200	0.523	0.696
1.194	0.173	0.481	0.683
1.246	0.154	0.449	0.680
1.296	0.152	0.454	0.691
1.346	0.145	0.449	0.692
1.396	0.134	0.428	0.696
1.446	0.118	0.401	0.677
1.497	0.101	0.378	0.637
1.599	0.025	0.239	0.266

σ v=0.4

J	Kt	10Kq	ηo
0.742	0.170	0.436	0.460
0.792	0.173	0.446	0.489
0.843	0.175	0.451	0.521
0.892	0.174	0.452	0.547
0.943	0.173	0.453	0.573
0.994	0.173	0.453	0.604
1.044	0.176	0.461	0.634
1.094	0.183	0.474	0.672
1.144	0.187	0.485	0.702
1.195	0.172	0.465	0.703
1.245	0.148	0.427	0.687
1.296	0.148	0.437	0.699
1.345	0.147	0.440	0.715
1.397	0.142	0.436	0.724
1.447	0.123	0.410	0.691
1.497	0.093	0.360	0.615
1.600	0.009	0.189	0.121

Table 4.17　Measured Data of Propeller Open Characteristics of SRIJ-II Propeller by Using J26 in Cavitation Tunnel

MPNo.356:SRIJ-II Prop. by J26
Tw=21°C
$\alpha/\alpha s=0.30$

NON-CAV.　n=40rps

Jv	Kt	10Kq	ηo
0.888	0.338	0.834	0.573
0.991	0.290	0.740	0.618
1.042	0.267	0.691	0.641
1.092	0.245	0.648	0.657
1.125	0.231	0.613	0.675
1.143	0.224	0.592	0.688
1.193	0.205	0.552	0.705
1.245	0.189	0.517	0.724
1.295	0.172	0.482	0.735
1.397	0.131	0.396	0.736
1.497	0.092	0.320	0.685
1.498	0.094	0.316	0.709

$\sigma v=1.0$　n=40rps

Jv	Kt	10Kq	ηo
0.691	0.186	0.459	0.446
0.742	0.202	0.496	0.481
0.791	0.219	0.534	0.516
0.841	0.229	0.558	0.549
0.892	0.236	0.576	0.582
0.942	0.242	0.594	0.611
0.992	0.244	0.602	0.640
1.042	0.241	0.599	0.667
1.092	0.235	0.592	0.690
1.143	0.217	0.559	0.706
1.194	0.200	0.531	0.716
1.245	0.187	0.506	0.732
1.295	0.171	0.473	0.745
1.346	0.153	0.438	0.748
1.397	0.136	0.401	0.754
1.447	0.118	0.364	0.747
1.497	0.099	0.324	0.728
1.548	0.077	0.281	0.675
1.599	0.047	0.222	0.539

$\sigma v=0.6$　n=40rps

Jv	Kt	10Kq	ηo
0.693	0.154	0.377	0.451
0.743	0.158	0.387	0.483
0.793	0.162	0.398	0.514
0.843	0.165	0.405	0.547
0.893	0.173	0.424	0.580
0.943	0.183	0.449	0.612
0.993	0.194	0.474	0.647
1.043	0.197	0.484	0.676
1.093	0.199	0.489	0.708
1.143	0.195	0.484	0.733
1.194	0.185	0.478	0.735
1.245	0.175	0.498	0.696
1.295	0.165	0.453	0.751
1.346	0.150	0.423	0.760
1.397	0.133	0.388	0.762
1.446	0.116	0.354	0.754
1.498	0.094	0.310	0.723
1.549	0.069	0.262	0.649
1.600	0.034	0.195	0.444

$\sigma v=0.5$　n=40rps

Jv	Kt	10Kq	ηo
0.743	0.154	0.375	0.486
0.793	0.156	0.383	0.514
0.843	0.157	0.385	0.547
0.894	0.159	0.392	0.577
0.944	0.164	0.404	0.610
0.994	0.172	0.422	0.645
1.044	0.180	0.440	0.680
1.094	0.183	0.450	0.708
1.144	0.181	0.448	0.736
1.194	0.176	0.444	0.753
1.245	0.169	0.446	0.751
1.296	0.157	0.428	0.757
1.346	0.142	0.401	0.759
1.397	0.127	0.371	0.761
1.447	0.111	0.339	0.754
1.497	0.090	0.298	0.720
1.549	0.055	0.225	0.603

$\sigma v=0.4$　n=40rps

Jv	Kt	10Kq	ηo
0.793	0.153	0.379	0.510
0.844	0.152	0.379	0.539
0.894	0.152	0.379	0.571
0.945	0.150	0.377	0.598
0.995	0.151	0.381	0.628
1.044	0.159	0.397	0.665
1.095	0.165	0.410	0.701
1.144	0.166	0.414	0.730
1.195	0.165	0.420	0.747
1.245	0.162	0.429	0.748
1.295	0.159	0.437	0.750
1.346	0.145	0.407	0.763
1.397	0.129	0.373	0.769
1.448	0.112	0.339	0.761
1.497	0.078	0.271	0.686

$\sigma v=0.4$　n=45rps

Jv	Kt	10Kq	ηo
0.793	0.154	0.373	0.521
0.844	0.153	0.375	0.548
0.894	0.151	0.373	0.576
0.944	0.150	0.372	0.606
0.994	0.152	0.375	0.641
1.045	0.158	0.387	0.679
1.094	0.162	0.396	0.712
1.138	0.168	0.410	0.742
1.195	0.166	0.410	0.770
1.245	0.160	0.414	0.766
1.295	0.154	0.407	0.780
1.346	0.143	0.389	0.788
1.397	0.126	0.354	0.791
1.447	0.107	0.318	0.775
1.498	0.080	0.269	0.709
1.549	0.044	0.188	0.577

Table 4.18 Measured Data of Propeller Open Characteristics of SRIJ-II Propeller by Using H38 in Cavitation Tunnel

MPNo. 356;SRIJ-II Prop. by H38
n=40rps, Tw=19°C
$\alpha / \alpha s = 0.29$

NON-CAV.

J	Kt	10Kq	ηo
0.887	0.342	0.821	0.588
0.939	0.319	0.776	0.614
0.990	0.295	0.730	0.637
1.041	0.271	0.682	0.658
1.091	0.248	0.636	0.677
1.143	0.224	0.592	0.688
1.194	0.205	0.554	0.703
1.245	0.187	0.517	0.717
1.294	0.167	0.477	0.721
1.346	0.147	0.433	0.727
1.398	0.127	0.395	0.715
1.447	0.108	0.354	0.703
1.498	0.085	0.306	0.662

$\sigma v = 1.0$

J	Kt	10Kq	ηo
0.692	0.188	0.457	0.453
0.742	0.205	0.499	0.485
0.791	0.220	0.536	0.517
0.841	0.230	0.532	0.579
0.891	0.239	0.578	0.586
0.941	0.244	0.591	0.618
0.992	0.245	0.597	0.648
1.042	0.243	0.598	0.674
1.092	0.233	0.585	0.692
1.144	0.213	0.551	0.704
1.194	0.200	0.538	0.706
1.245	0.184	0.503	0.725
1.295	0.165	0.466	0.730
1.346	0.144	0.425	0.726
1.398	0.127	0.387	0.730
1.447	0.106	0.343	0.712
1.498	0.085	0.300	0.676
1.548	0.060	0.248	0.596
1.599	0.023	0.172	0.340

$\sigma v = 0.6$

J	Kt	10Kq	ηo
0.693	0.162	0.386	0.463
0.742	0.167	0.398	0.496
0.793	0.170	0.407	0.527
0.842	0.174	0.419	0.557
0.892	0.181	0.437	0.588
0.943	0.189	0.459	0.618
0.994	0.197	0.476	0.655
1.043	0.200	0.487	0.682
1.093	0.197	0.482	0.711
1.144	0.192	0.477	0.733
1.194	0.181	0.471	0.730
1.245	0.176	0.470	0.742
1.295	0.161	0.443	0.749
1.346	0.142	0.403	0.755
1.397	0.123	0.364	0.751
1.448	0.103	0.320	0.742
1.498	0.072	0.256	0.671
1.549	0.041	0.196	0.516
1.600	-0.004	0.102	-0.100

$\sigma v = 0.5$

J	Kt	10Kq	ηo
0.743	0.161	0.386	0.493
0.792	0.164	0.393	0.526
0.843	0.165	0.396	0.559
0.893	0.168	0.403	0.592
0.943	0.171	0.414	0.620
0.994	0.177	0.430	0.651
1.044	0.182	0.443	0.683
1.094	0.183	0.449	0.710
1.144	0.180	0.448	0.732
1.195	0.175	0.459	0.725
1.245	0.178	0.478	0.738
1.295	0.159	0.443	0.740
1.346	0.139	0.404	0.737
1.397	0.119	0.361	0.733
1.447	0.093	0.305	0.702
1.498	0.062	0.245	0.603
1.549	0.027	0.171	0.389
1.600	-0.037	0.029	-3.249

$\sigma v = 0.4$

J	Kt	10Kq	ηo
0.794	0.159	0.383	0.525
0.843	0.160	0.385	0.558
0.894	0.159	0.387	0.585
0.944	0.158	0.390	0.609
0.994	0.159	0.395	0.637
1.044	0.161	0.398	0.672
1.095	0.164	0.407	0.702
1.144	0.165	0.415	0.724
1.195	0.160	0.418	0.728
1.245	0.156	0.423	0.731
1.296	0.148	0.415	0.736
1.346	0.129	0.374	0.739
1.397	0.105	0.324	0.721
1.448	0.078	0.274	0.656
1.499	0.045	0.205	0.524
1.550	-0.029	0.027	-2.650

Table 4.19　Measured Data of Propeller Open Characteristics of SRIJ-A Propeller by Using J26 in Cavitation Tunnel

MPNo.365;SRIJ-A Prop. by J26
Tw=23.5°C
$\alpha/\alpha s=0.27$

NON-CAV.　　n=35rps

J	Kt	10Kq	ηo
0.786	0.403	1.001	0.504
0.837	0.378	0.954	0.528
0.888	0.355	0.909	0.552
0.939	0.333	0.866	0.575
0.990	0.312	0.826	0.595
1.040	0.292	0.786	0.615
1.092	0.272	0.750	0.630
1.143	0.252	0.713	0.643
1.193	0.233	0.675	0.655
1.244	0.217	0.641	0.670
1.294	0.199	0.606	0.676
1.345	0.183	0.575	0.681
1.395	0.168	0.540	0.691
1.446	0.143	0.493	0.668

σ v=1.0　　n=45rps

J	Kt	10Kq	ηo
0.789	0.281	0.690	0.511
0.839	0.293	0.719	0.544
0.890	0.299	0.735	0.576
0.940	0.302	0.749	0.603
0.990	0.297	0.744	0.629
1.041	0.279	0.720	0.642
1.092	0.262	0.698	0.652
1.143	0.246	0.680	0.658
1.194	0.236	0.670	0.669
1.244	0.218	0.635	0.680
1.294	0.202	0.605	0.688
1.345	0.185	0.573	0.691
1.395	0.165	0.536	0.683

σ v=0.5　　n=45rps

J	Kt	10Kq	ηo
0.791	0.201	0.494	0.512
0.842	0.206	0.508	0.543
0.892	0.209	0.520	0.571
0.942	0.216	0.538	0.602
0.992	0.226	0.566	0.630
1.042	0.234	0.584	0.664
1.093	0.235	0.593	0.689
1.144	0.221	0.578	0.696
1.194	0.208	0.568	0.696
1.244	0.206	0.580	0.703
1.295	0.194	0.564	0.709
1.345	0.181	0.545	0.711
1.396	0.165	0.515	0.712

σ v=0.4　　n=45rps

J	Kt	10Kq	ηo
0.792	0.192	0.471	0.514
0.842	0.196	0.483	0.544
0.893	0.199	0.494	0.573
0.943	0.200	0.497	0.604
0.993	0.202	0.506	0.631
1.043	0.209	0.525	0.661
1.093	0.214	0.539	0.691
1.143	0.212	0.544	0.709
1.194	0.197	0.535	0.700
1.244	0.195	0.544	0.710
1.294	0.183	0.523	0.721
1.345	0.175	0.518	0.723
1.396	0.159	0.491	0.719

σ v=0.3　　n=45rps

J	Kt	10Kq	ηo
0.842	0.190	0.463	0.550
0.892	0.191	0.470	0.577
0.943	0.191	0.471	0.609
0.993	0.190	0.472	0.636
1.043	0.188	0.470	0.664
1.094	0.187	0.474	0.687
1.094	0.187	0.472	0.690
1.144	0.188	0.482	0.710
1.195	0.178	0.486	0.697
1.245	0.178	0.491	0.718
1.295	0.172	0.486	0.729
1.346	0.161	0.473	0.729
1.396	0.141	0.442	0.709

Table 4.20 Measured Data of Propeller Open Characteristics of SRIJ-III Propeller by Using J26 in Cavitation Tunnel

MPNo.366;SRIJ-III Prop. by J26
n=40rps, Tw=25.26°C
$\alpha / \alpha s$=0.28, 30

NON-CAV.

Jv	Kt	10Kq	ηo
0.839	0.317	0.740	0.572
0.889	0.298	0.704	0.599
0.940	0.279	0.668	0.625
0.991	0.261	0.634	0.649
1.042	0.243	0.599	0.673
1.093	0.226	0.565	0.696
1.144	0.209	0.533	0.714
1.194	0.194	0.504	0.731
1.245	0.178	0.472	0.747
1.295	0.161	0.438	0.758
1.346	0.142	0.402	0.757
1.397	0.124	0.366	0.753
1.447	0.105	0.326	0.742
1.498	0.082	0.286	0.684
1.548	0.054	0.233	0.571
1.600	0.013	0.160	0.207

σv=1.0

Jv	Kt	10Kq	ηo
0.694	0.170	0.407	0.461
0.743	0.183	0.435	0.497
0.793	0.194	0.458	0.535
0.842	0.201	0.471	0.572
0.892	0.206	0.485	0.603
0.942	0.210	0.493	0.639
0.993	0.210	0.498	0.666
1.043	0.207	0.496	0.693
1.093	0.199	0.483	0.717
1.144	0.180	0.455	0.720
1.194	0.179	0.461	0.738
1.246	0.164	0.431	0.755
1.296	0.148	0.401	0.761
1.347	0.129	0.364	0.760
1.397	0.111	0.332	0.743
1.447	0.090	0.291	0.712
1.498	0.067	0.250	0.639
1.549	0.041	0.206	0.491
1.601	0.013	0.156	0.212

σv=0.6

Jv	Kt	10Kq	ηo
0.694	0.145	0.344	0.466
0.744	0.148	0.351	0.499
0.794	0.148	0.354	0.528
0.844	0.153	0.366	0.562
0.893	0.160	0.380	0.598
0.944	0.166	0.395	0.631
0.994	0.174	0.409	0.673
1.044	0.176	0.413	0.708
1.094	0.173	0.410	0.735
1.144	0.165	0.402	0.747
1.195	0.154	0.391	0.749
1.246	0.147	0.379	0.769
1.296	0.131	0.350	0.772
1.348	0.116	0.325	0.766
1.398	0.090	0.280	0.715
1.448	0.063	0.232	0.626
1.499	0.030	0.165	0.434
1.551	-0.020	0.062	-0.796

σv=0.5

Jv	Kt	10Kq	ηo
0.743	0.146	0.346	0.499
0.794	0.145	0.347	0.528
0.844	0.145	0.347	0.561
0.894	0.146	0.350	0.594
0.944	0.151	0.362	0.627
0.994	0.159	0.379	0.664
1.045	0.163	0.385	0.704
1.094	0.163	0.387	0.733
1.144	0.159	0.385	0.752
1.196	0.151	0.376	0.764
1.245	0.139	0.358	0.769
1.297	0.125	0.331	0.780
1.347	0.107	0.302	0.760
1.399	0.082	0.256	0.713
1.449	0.047	0.185	0.586
1.500	-0.002	0.082	-0.058

σv=0.4

Jv	Kt	10Kq	ηo
0.794	0.142	0.333	0.539
0.844	0.142	0.333	0.573
0.894	0.140	0.331	0.602
0.945	0.138	0.329	0.631
0.995	0.139	0.332	0.663
1.045	0.145	0.343	0.703
1.095	0.149	0.352	0.738
1.146	0.149	0.357	0.761
1.196	0.148	0.365	0.772
1.246	0.136	0.344	0.784
1.296	0.120	0.316	0.783
1.348	0.099	0.277	0.767
1.398	0.065	0.213	0.679
1.449	0.027	0.126	0.494
1.500	-0.010	0.054	-0.442

Table 4.21　Measured Data of Propeller Open Characteristics of SRIJ-IV Propeller by Using J26 in Cavitation Tunnel

MPNo.369;SRIJ-IV Prop. by J26
n=40rps, Tw=9°C
$\alpha/\alpha s=0.33$

NON-CAV.

J	Kt	10Kq	ηo
0.890	0.309	0.761	0.575
0.942	0.283	0.713	0.595
0.992	0.260	0.671	0.612
1.041	0.241	0.638	0.626
1.092	0.221	0.602	0.638
1.145	0.203	0.565	0.655
1.193	0.185	0.525	0.669
1.244	0.166	0.491	0.669
1.297	0.147	0.456	0.665
1.347	0.129	0.420	0.658
1.397	0.111	0.383	0.644
1.447	0.092	0.345	0.614
1.498	0.070	0.306	0.545

$\sigma v=1.0$

J	Kt	10Kq	ηo
0.692	0.205	0.504	0.448
0.742	0.229	0.560	0.483
0.790	0.240	0.586	0.515
0.840	0.250	0.611	0.547
0.890	0.256	0.623	0.582
0.941	0.256	0.626	0.612
0.992	0.251	0.618	0.641
1.041	0.234	0.592	0.655
1.092	0.215	0.564	0.663
1.142	0.203	0.546	0.676
1.192	0.186	0.515	0.685
1.246	0.169	0.482	0.695
1.297	0.151	0.440	0.708
1.346	0.135	0.403	0.718
1.396	0.115	0.369	0.692
1.448	0.094	0.328	0.660
1.498	0.074	0.286	0.617
1.549	0.054	0.242	0.550

$\sigma v=0.6$

J	Kt	10Kq	ηo
0.692	0.147	0.368	0.440
0.742	0.153	0.385	0.469
0.791	0.163	0.408	0.503
0.842	0.178	0.442	0.540
0.892	0.192	0.474	0.575
0.942	0.200	0.492	0.609
0.992	0.206	0.505	0.644
1.042	0.208	0.511	0.675
1.092	0.202	0.505	0.695
1.144	0.186	0.492	0.688
1.193	0.187	0.507	0.700
1.246	0.168	0.476	0.700
1.297	0.144	0.430	0.691
1.347	0.128	0.396	0.693
1.397	0.113	0.364	0.690
1.448	0.092	0.321	0.660
1.497	0.071	0.276	0.613
1.551	0.045	0.228	0.487

$\sigma v=0.5$

J	Kt	10Kq	ηo
0.792	0.148	0.374	0.499
0.844	0.151	0.377	0.538
0.893	0.160	0.401	0.567
0.942	0.173	0.430	0.603
0.993	0.185	0.458	0.638
1.040	0.190	0.470	0.669
1.093	0.188	0.471	0.694
1.144	0.178	0.469	0.691
1.195	0.177	0.484	0.696
1.245	0.160	0.453	0.700
1.296	0.141	0.417	0.697
1.347	0.123	0.382	0.690
1.398	0.107	0.350	0.680
1.448	0.088	0.307	0.661
1.498	0.069	0.269	0.612
1.549	0.044	0.222	0.489

$\sigma v=0.4$

J	Kt	10Kq	ηo
0.846	0.143	0.364	0.529
0.895	0.143	0.365	0.558
0.943	0.145	0.369	0.590
0.994	0.155	0.391	0.627
1.042	0.163	0.409	0.661
1.094	0.168	0.424	0.690
1.144	0.168	0.439	0.697
1.195	0.166	0.453	0.697
1.245	0.152	0.429	0.702
1.295	0.136	0.392	0.715
1.346	0.126	0.375	0.720
1.396	0.107	0.340	0.699
1.447	0.087	0.302	0.663
1.499	0.060	0.245	0.584

Table 4.22 Measured Data of Propeller Open Characteristics of SRIJ-IV Propeller by Using H38 in Cavitation Tunnel

MP No. 369
Measured by H38
Tw=19.0℃, α/αs=0.30, 0.33, n=40rps

NON-CAV.

Jv	Kt	10Kq	ηo
0.889	0.314	0.771	0.576
0.941	0.286	0.718	0.597
0.992	0.263	0.676	0.614
1.042	0.243	0.638	0.632
1.093	0.223	0.599	0.648
1.143	0.204	0.561	0.662
1.195	0.185	0.522	0.674
1.245	0.164	0.480	0.677
1.296	0.146	0.443	0.680
1.346	0.127	0.405	0.672
1.398	0.107	0.364	0.654
1.448	0.085	0.319	0.614
1.497	0.063	0.274	0.548

σv=1.0

Jv	Kt	10Kq	ηo
0.691	0.203	0.491	0.455
0.740	0.224	0.540	0.489
0.791	0.239	0.577	0.521
0.840	0.249	0.604	0.551
0.889	0.254	0.617	0.582
0.941	0.255	0.623	0.613
0.992	0.246	0.611	0.636
1.042	0.228	0.583	0.649
1.092	0.211	0.561	0.654
1.144	0.202	0.546	0.674
1.194	0.183	0.508	0.685
1.246	0.163	0.469	0.689
1.296	0.144	0.432	0.688
1.346	0.127	0.395	0.689
1.397	0.107	0.353	0.674
1.448	0.085	0.308	0.636
1.498	0.062	0.259	0.571
1.549	0.039	0.212	0.454

σv=0.6

Jv	Kt	10Kq	ηo
0.743	0.155	0.376	0.487
0.793	0.163	0.396	0.520
0.843	0.175	0.424	0.554
0.893	0.187	0.453	0.587
0.942	0.197	0.476	0.620
0.993	0.203	0.495	0.648
1.043	0.204	0.501	0.676
1.093	0.195	0.497	0.683
1.143	0.195	0.525	0.676
1.195	0.177	0.495	0.680
1.245	0.155	0.448	0.686
1.296	0.137	0.416	0.679
1.347	0.121	0.379	0.684
1.397	0.100	0.331	0.672
1.448	0.079	0.286	0.637
1.499	0.054	0.236	0.546
1.549	0.029	0.185	0.386

σv=0.5

Jv	Kt	10Kq	ηo
0.743	0.148	0.360	0.486
0.793	0.152	0.371	0.517
0.844	0.156	0.381	0.550
0.894	0.162	0.397	0.581
0.943	0.172	0.422	0.612
0.995	0.181	0.446	0.643
1.044	0.184	0.457	0.669
1.094	0.183	0.467	0.682
1.145	0.181	0.490	0.673
1.195	0.167	0.467	0.680
1.245	0.150	0.436	0.682
1.297	0.132	0.401	0.680
1.346	0.110	0.356	0.662
1.398	0.092	0.316	0.648
1.448	0.066	0.261	0.583
1.498	0.045	0.219	0.490
1.549	0.015	0.153	0.242

σv=0.4

Jv	Kt	10Kq	ηo
0.794	0.145	0.357	0.513
0.844	0.147	0.361	0.547
0.893	0.147	0.364	0.574
0.944	0.149	0.369	0.607
0.995	0.152	0.380	0.633
1.045	0.160	0.401	0.664
1.095	0.166	0.423	0.684
1.145	0.170	0.453	0.684
1.195	0.161	0.448	0.683
1.246	0.137	0.396	0.686
1.296	0.125	0.378	0.682
1.347	0.103	0.332	0.665
1.398	0.080	0.284	0.627
1.451	0.052	0.228	0.527
1.500	0.019	0.151	0.300

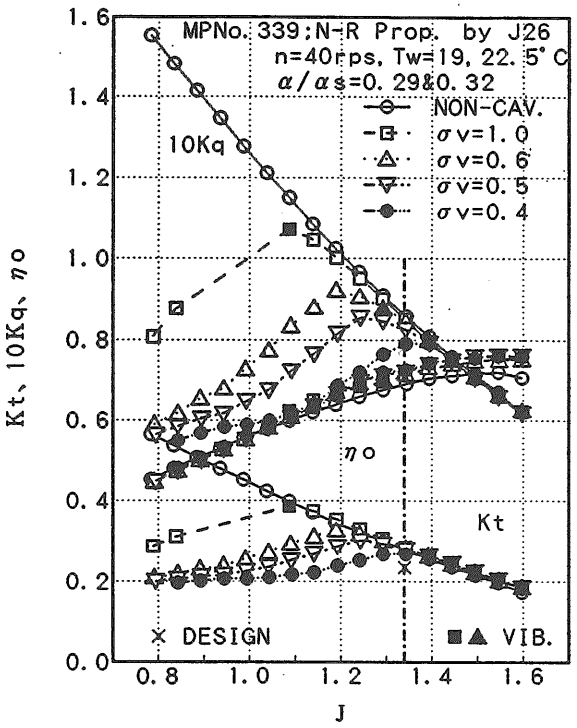

Fig. 4.9　Propeller Open Characteristics of Newton-Rader Propeller Measured by Using J26 Dynamometer

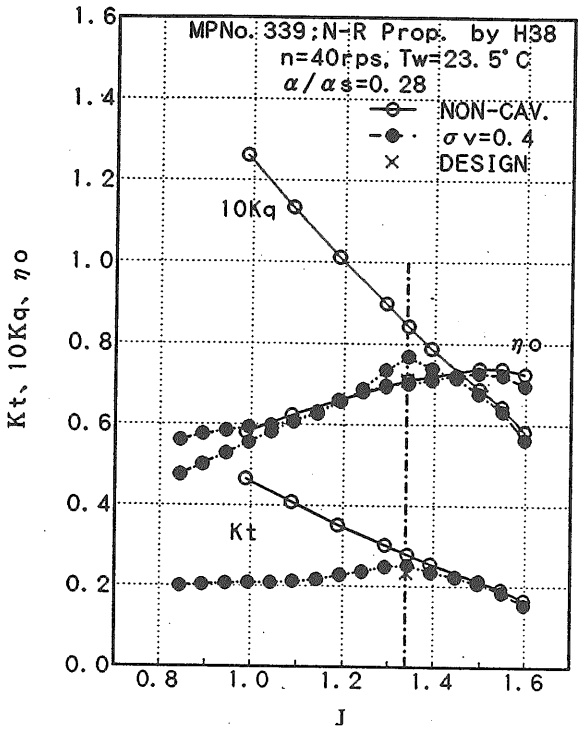

Fig. 4.11　Propeller Open Characteristics of Newton-Rader Propeller Measured by Using H38 Dynamometer

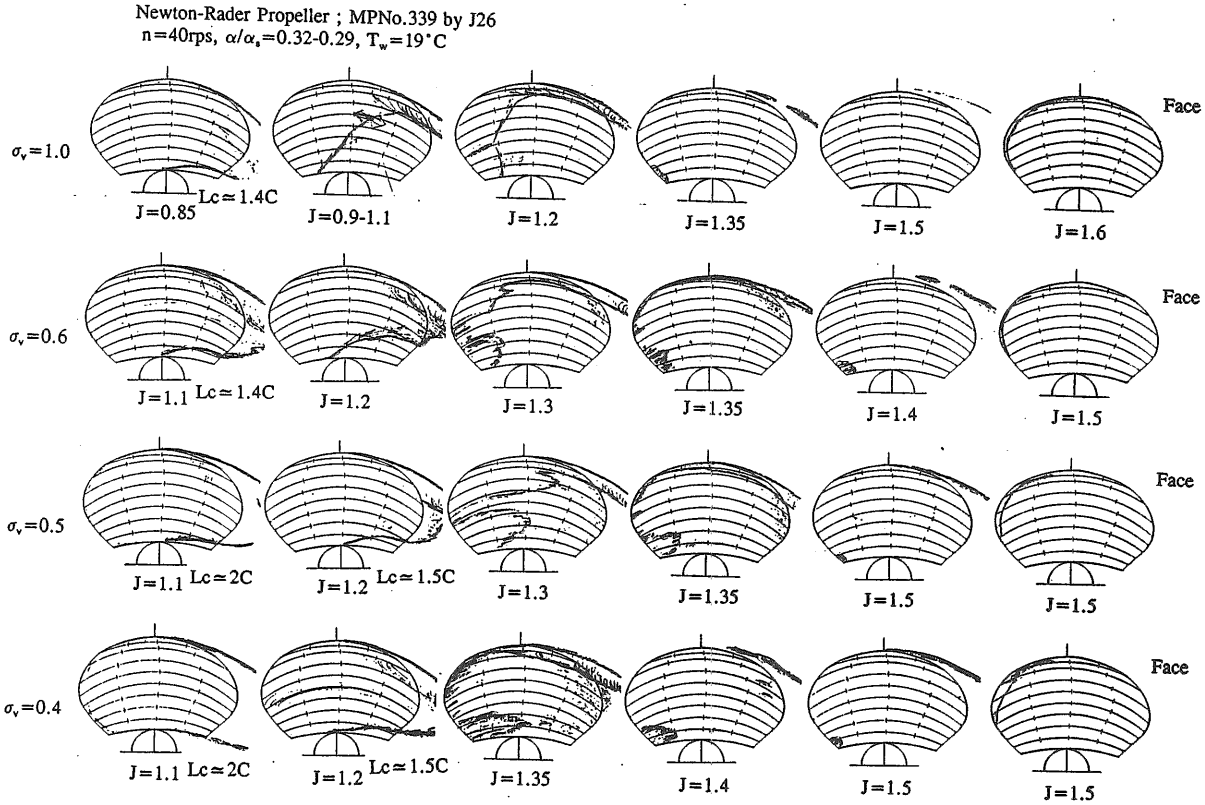

Fig. 4.10　Sketch of Cavitation Pattern on Newton-Rade Propeller Set Up to J26 Dynamometer

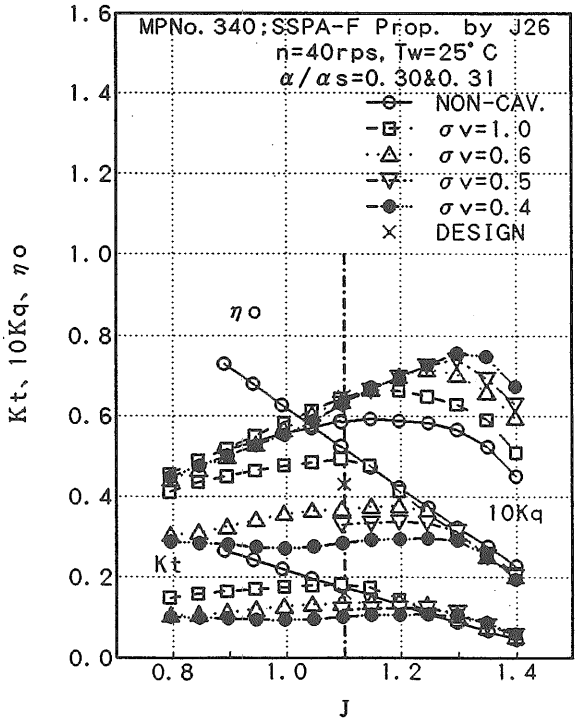

Fig. 4.12 Propeller Open Characteristics of SSPA-F Propeller Measured by Using J26 Dynamometer

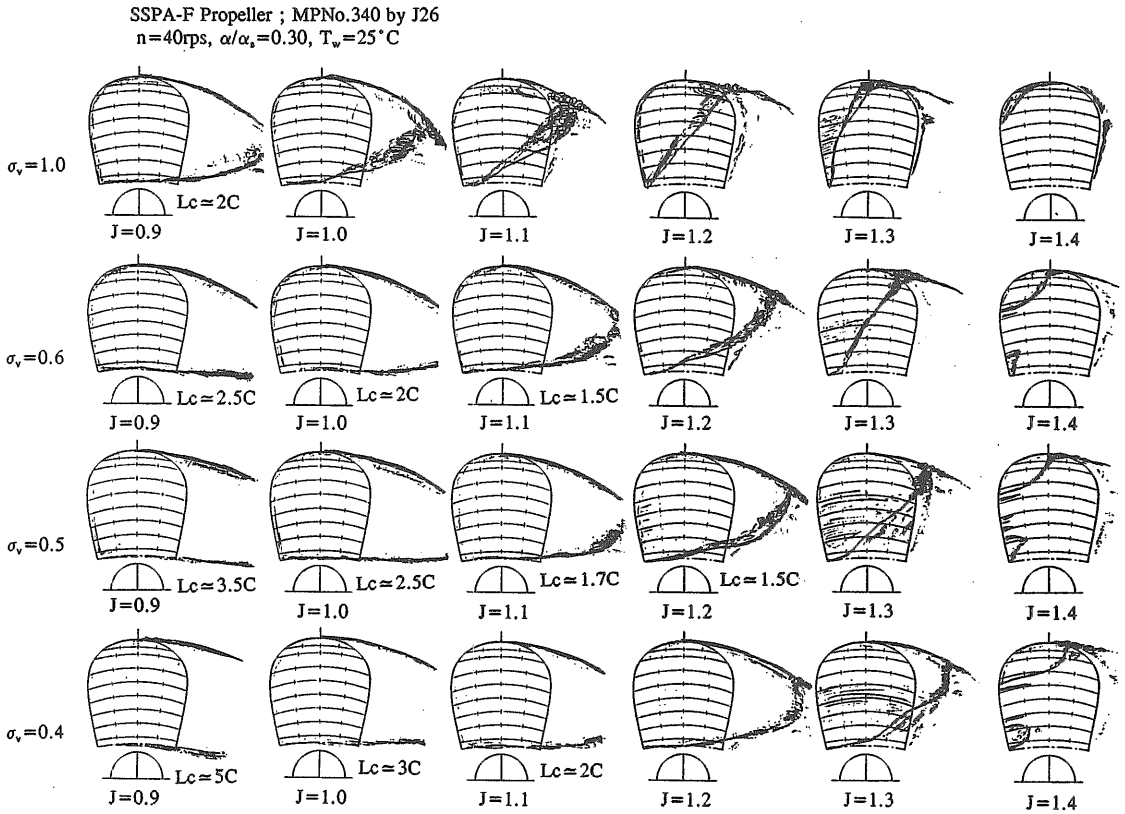

Fig. 4.13 Sketch of Cavitaion Pattern on SSPA-F Propeller Set Up to J26 Dynamometer

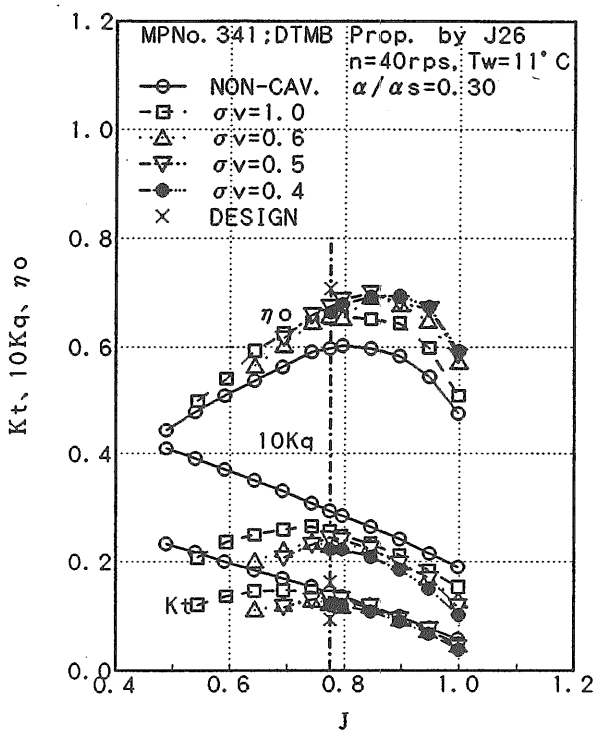

Fig. 4.14 (a)　Propeller Open Characteristics of DTMB Propeller Measured by Using J26 Dynamometer

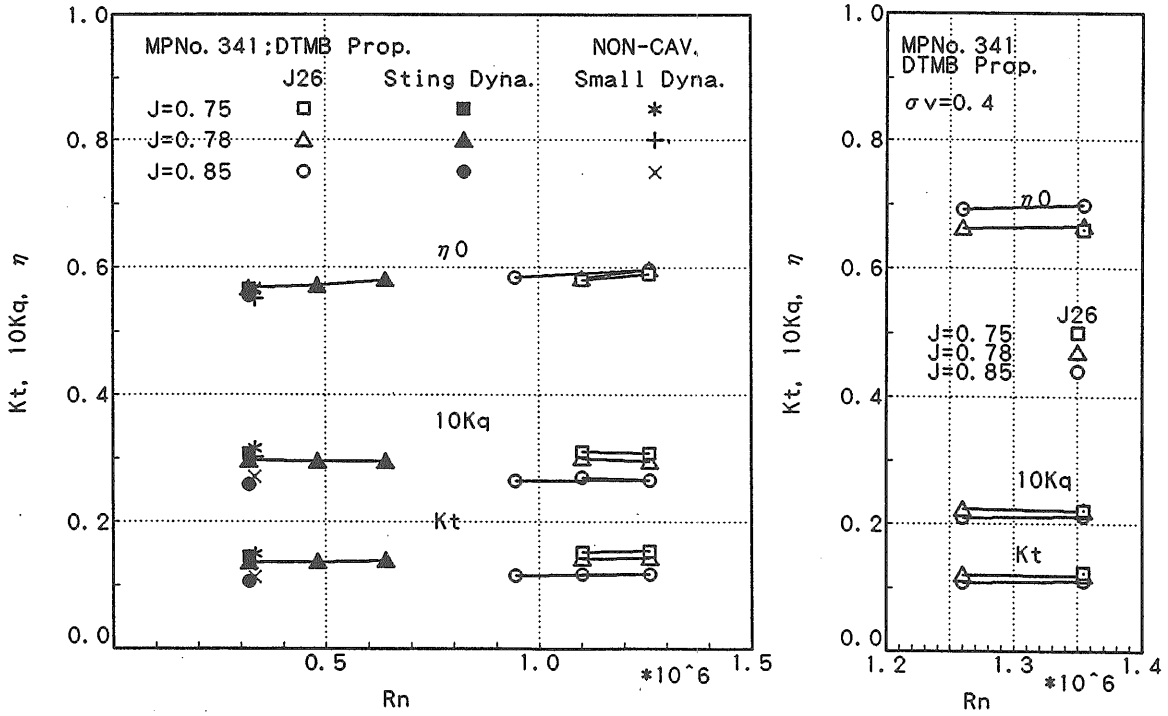

Fig. 4.14 (b)　Viscous Effect on DTMB Propeller Performance Measured by Using J26 Dynamometer

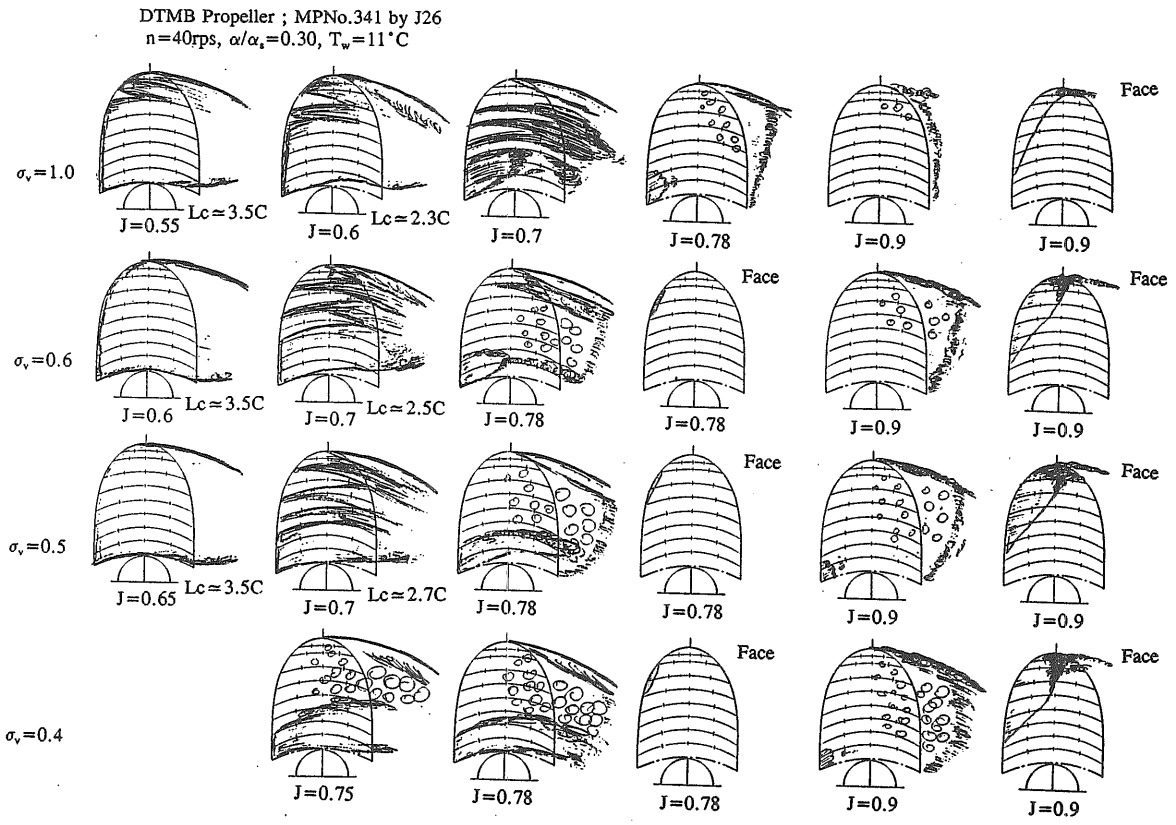

Fig. 4.15 Sketch of Cavitaion Pattern on DTMB Propeller Set Up to J26 Dynamometer

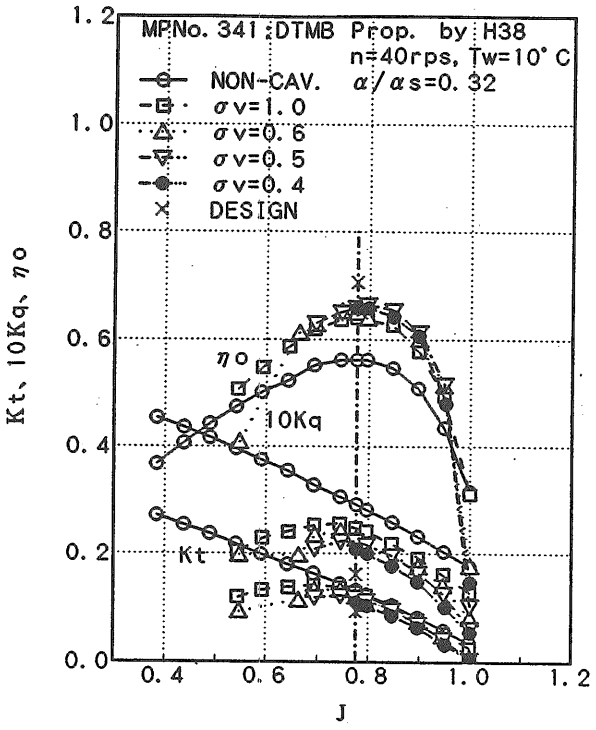

Fig. 4.16 (a) Propeller Open Characteristics of DTMB Propeller Measured by Using H38 Dynamometer

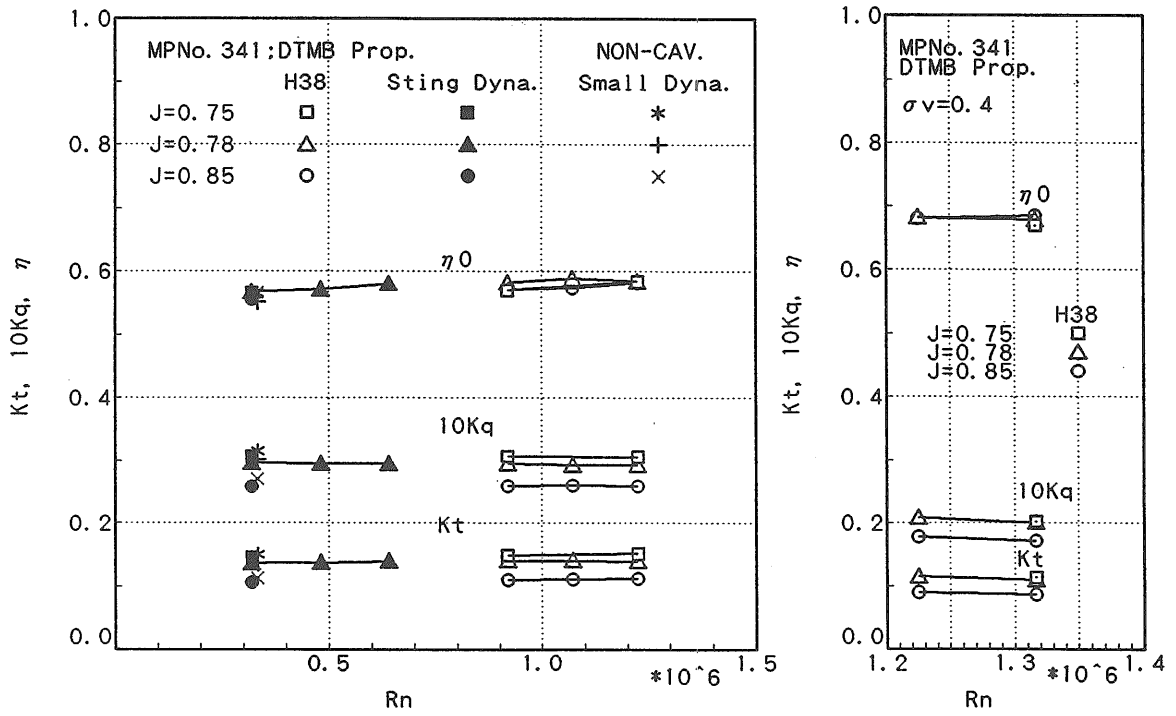

Fig. 4.16 (b)　Viscous Effect on DTMB Propeller Performance Measured by Using H38 Dynamometer

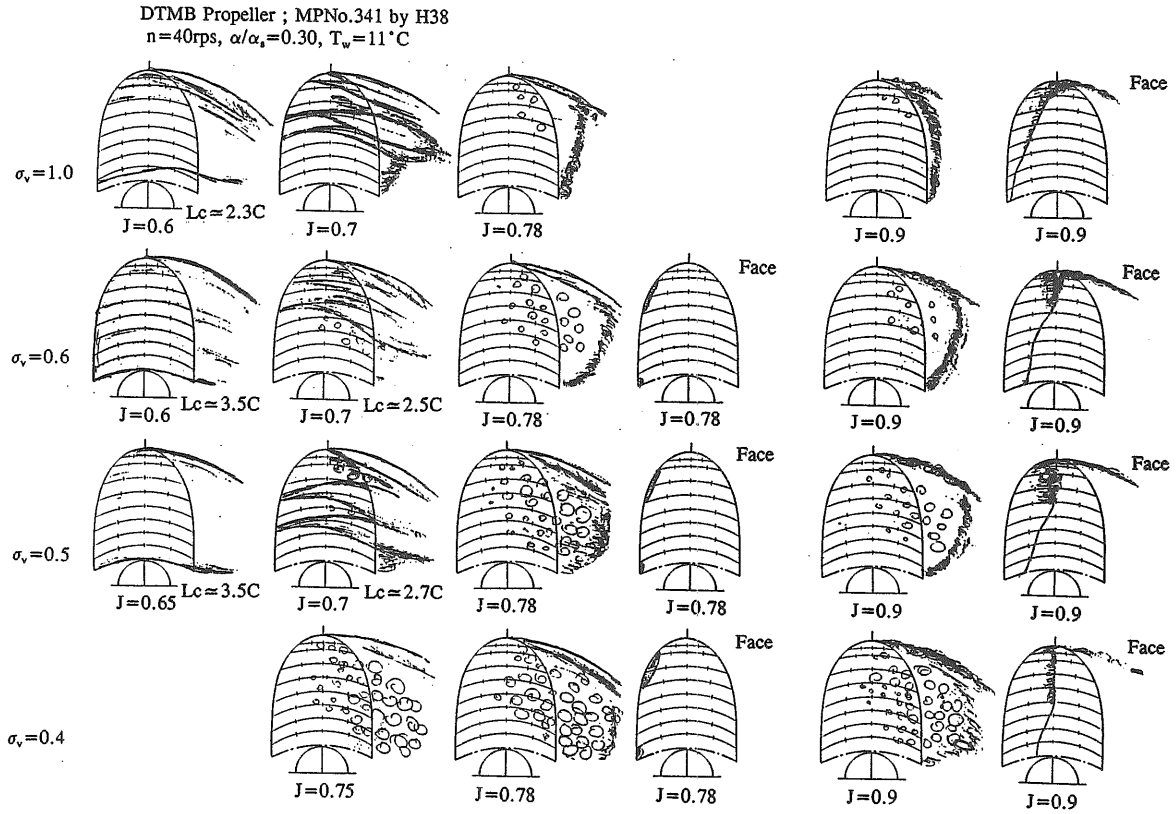

Fig. 4.17　Sketch of Cavitaion Pattern on DTMB Propeller Set Up to H38 Dynamometer

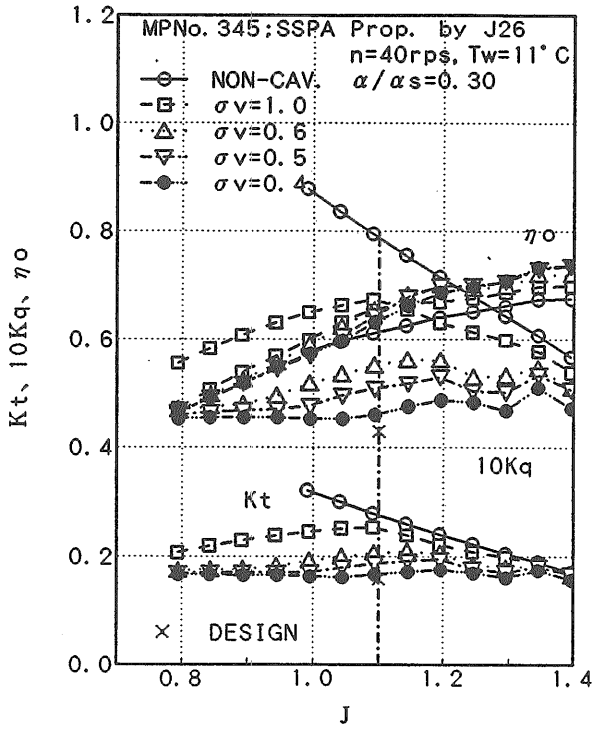

Fig. 4.18 (a) Propeller Open Characteristics of SSPA Propeller Measured by Using J26 Dynamometer

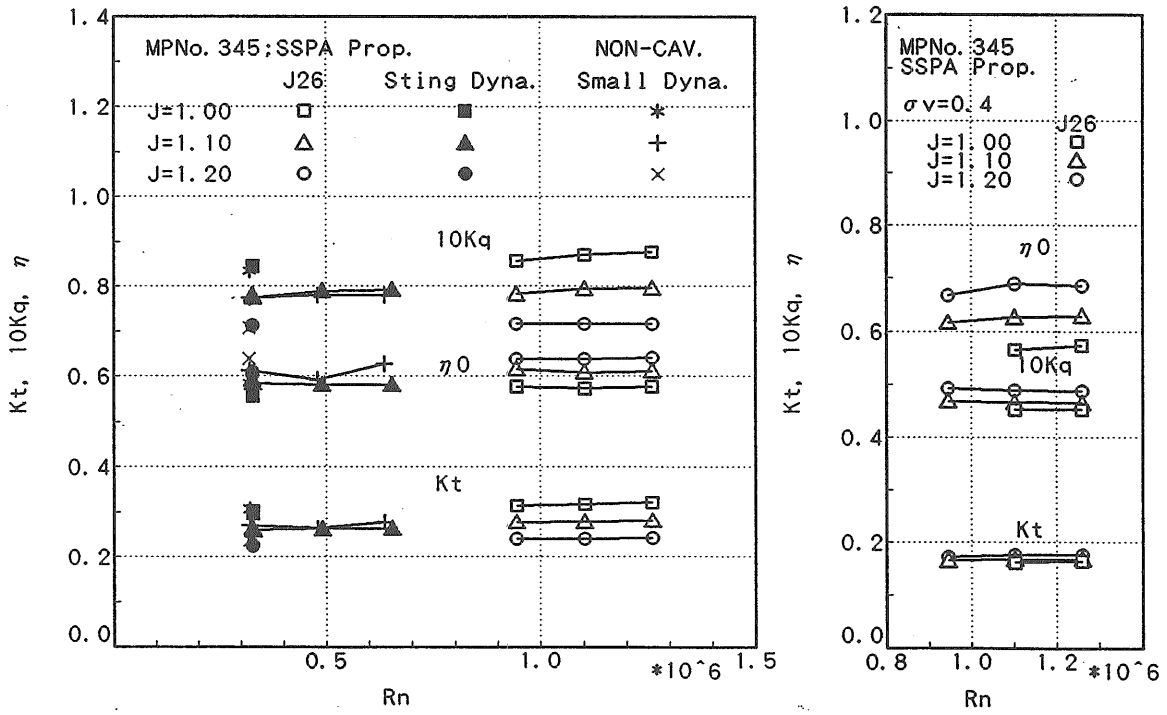

Fig. 4.18 (b) Viscous Effect on SSPA Propeller Performance Measured by Using J26 Dynamometer

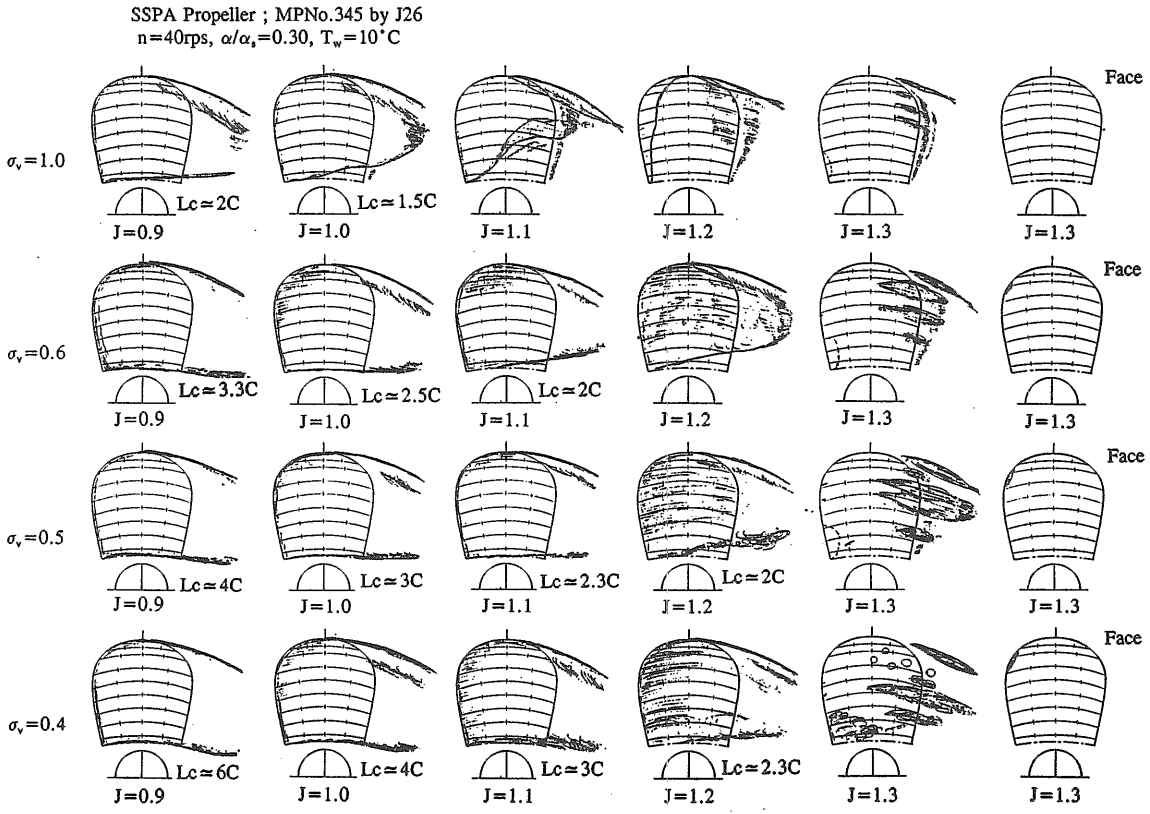

Fig. 4.19　Sketch of Cavitaion Pattern on SSPA Propeller Set Up to J26 Dynamometer

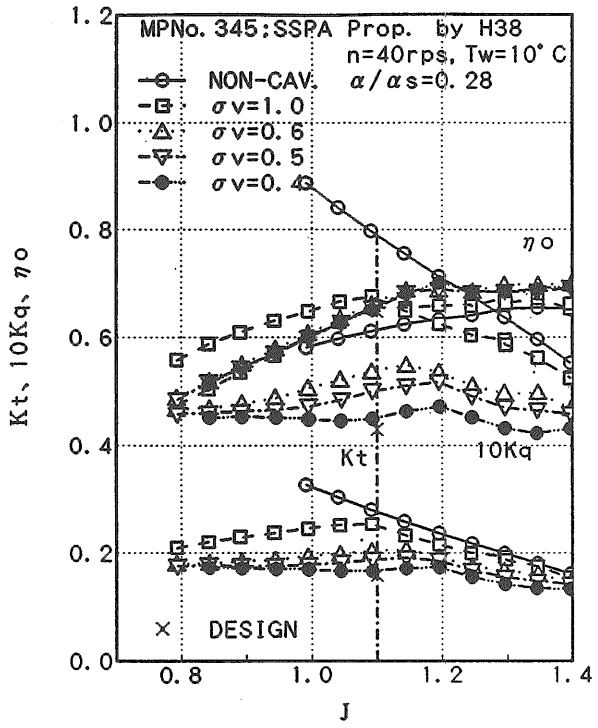

Fig. 4.20 (a)　Propeller Open Characteristics of SSPA Propeller Measured by Using H38 Dynamometer

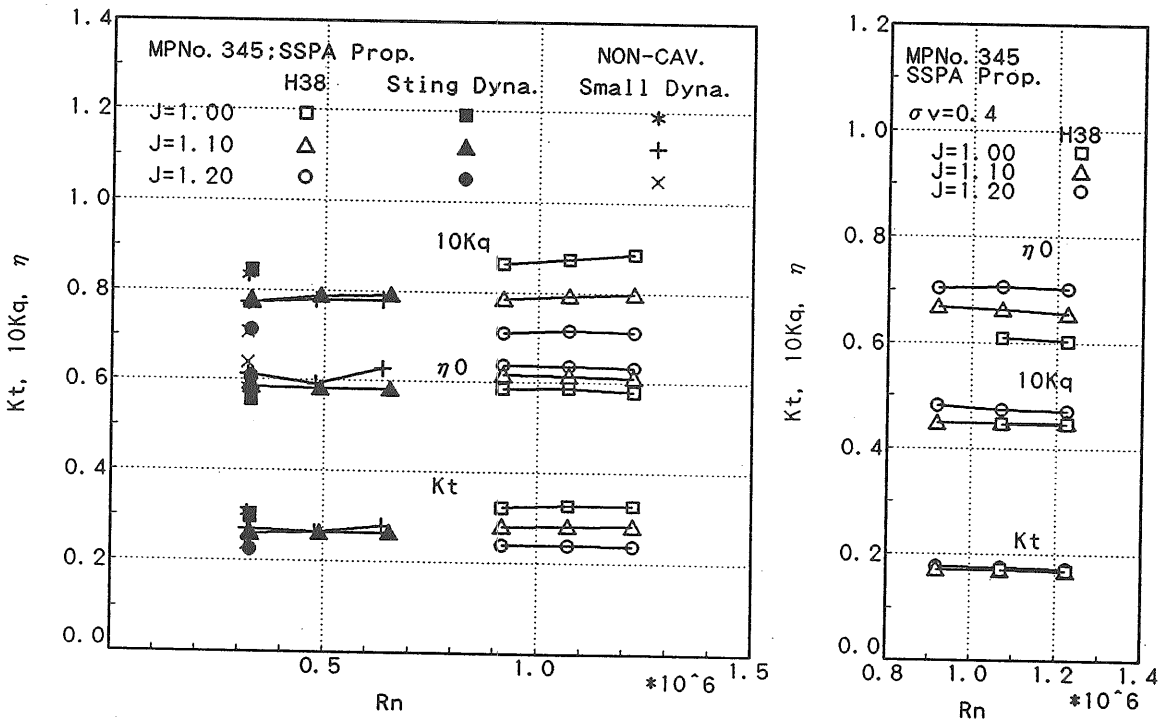

Fig. 4.20 (b) Viscous Effect on SSPA Propeller Performance Measured by Using H38 Dynamometer

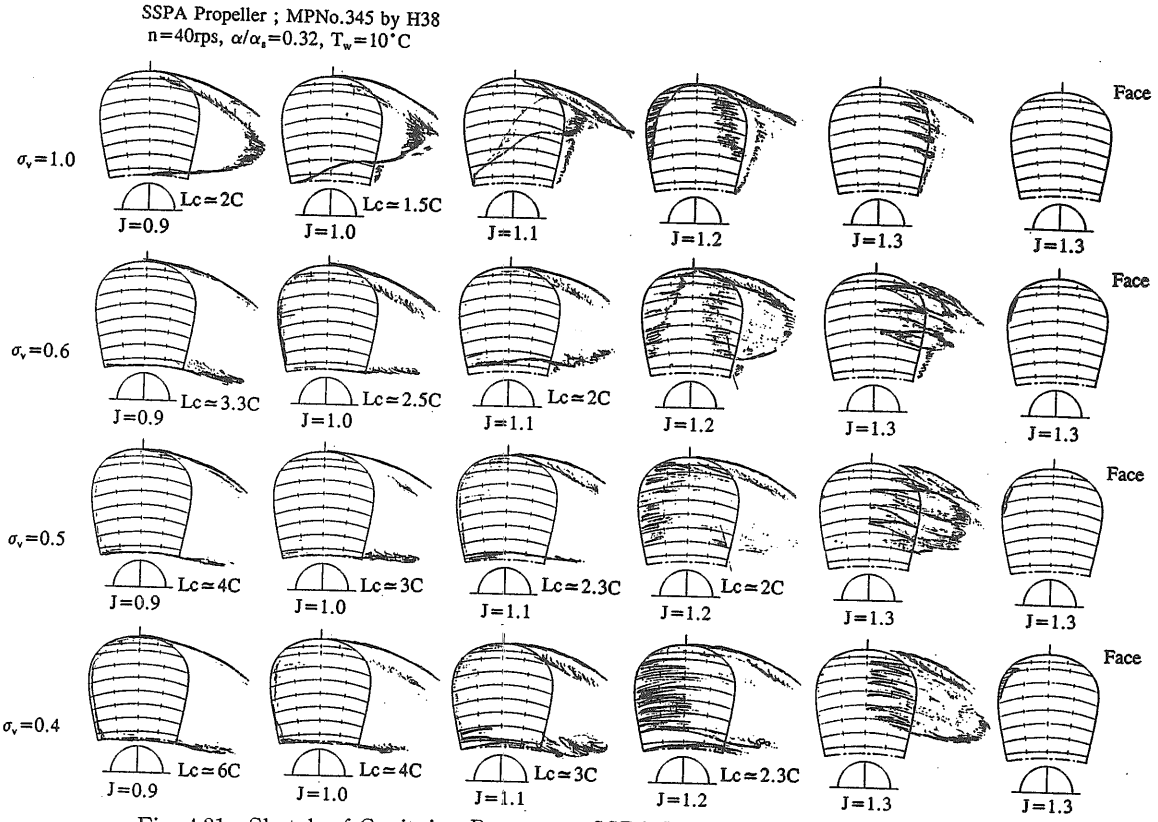

Fig. 4.21 Sketch of Cavitaion Pattern on SSPA Propeller Set Up to H38 Dynamometer

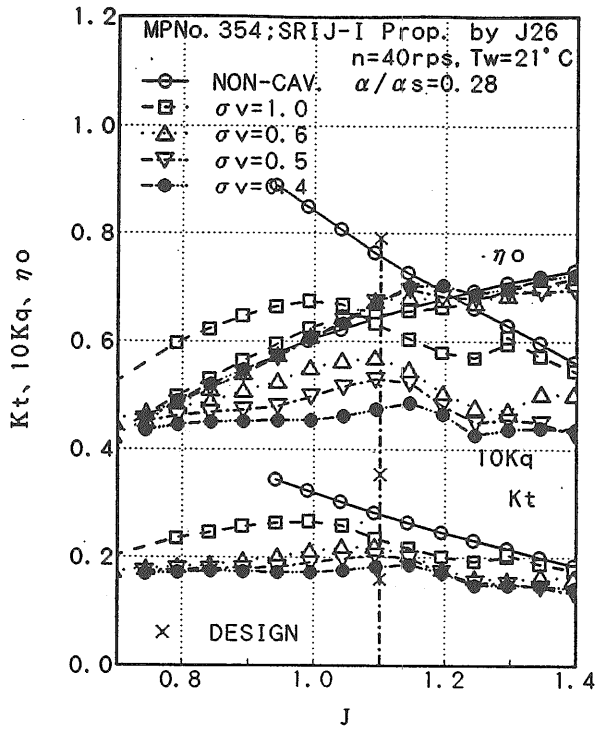

Fig. 4.22　Propeller Open Characteristics of SRIJ-I Propeller Measured by Using J26 Dynamometer

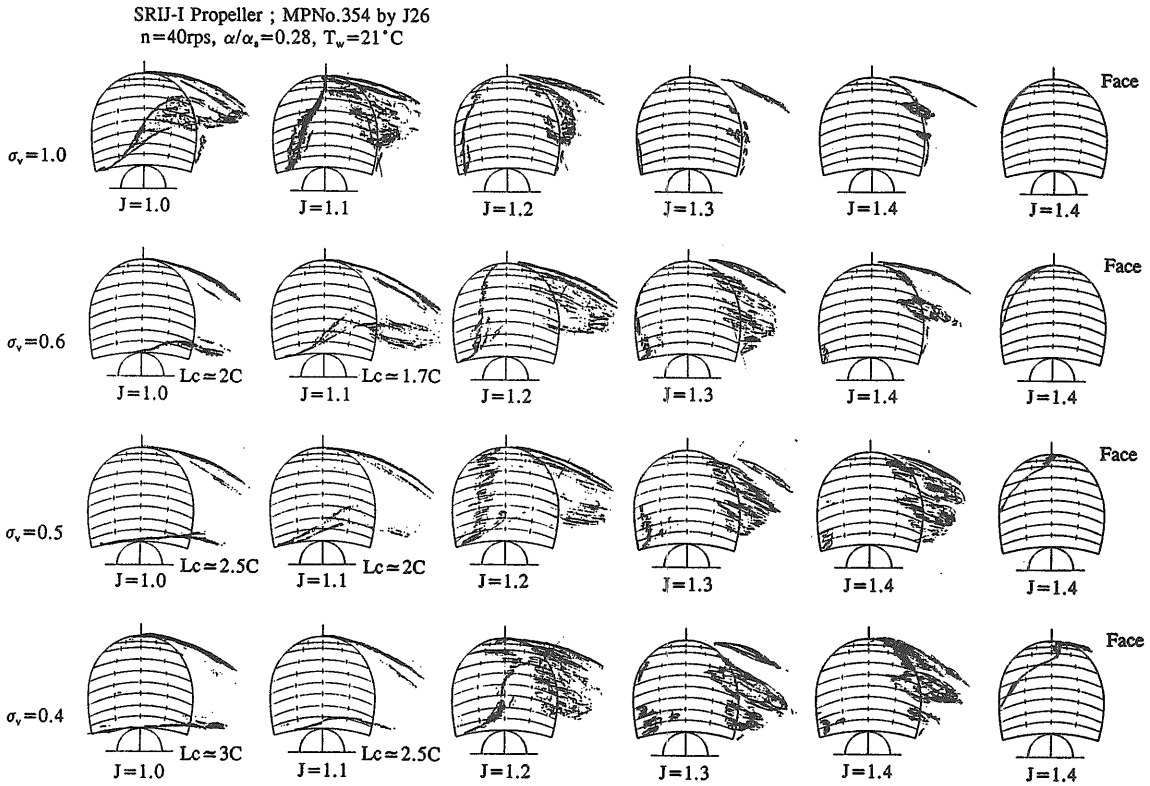

Fig. 4.23　Sketch of Cavitaion Pattern on SRIJ-I Propeller Set Up to J26 Dynamometer

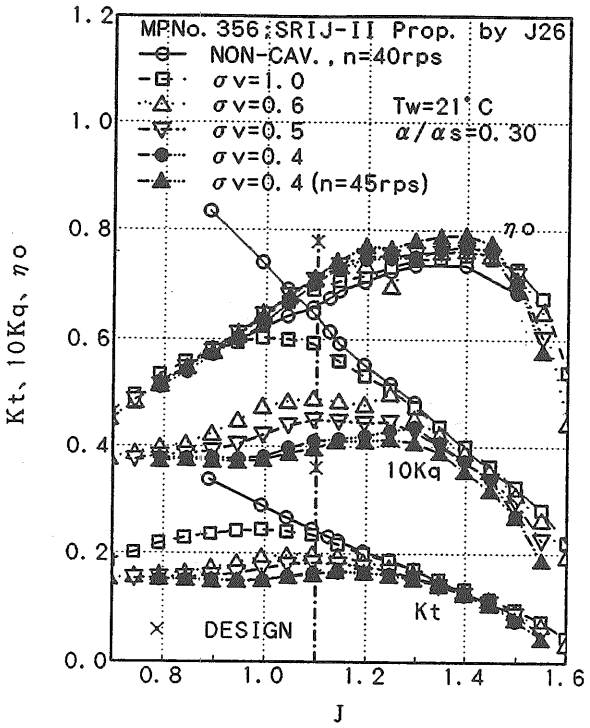

Fig. 4.24 (a) Propeller Open Characteristics of SRIJ-II Propeller Measured by Using J26 Dynamometer

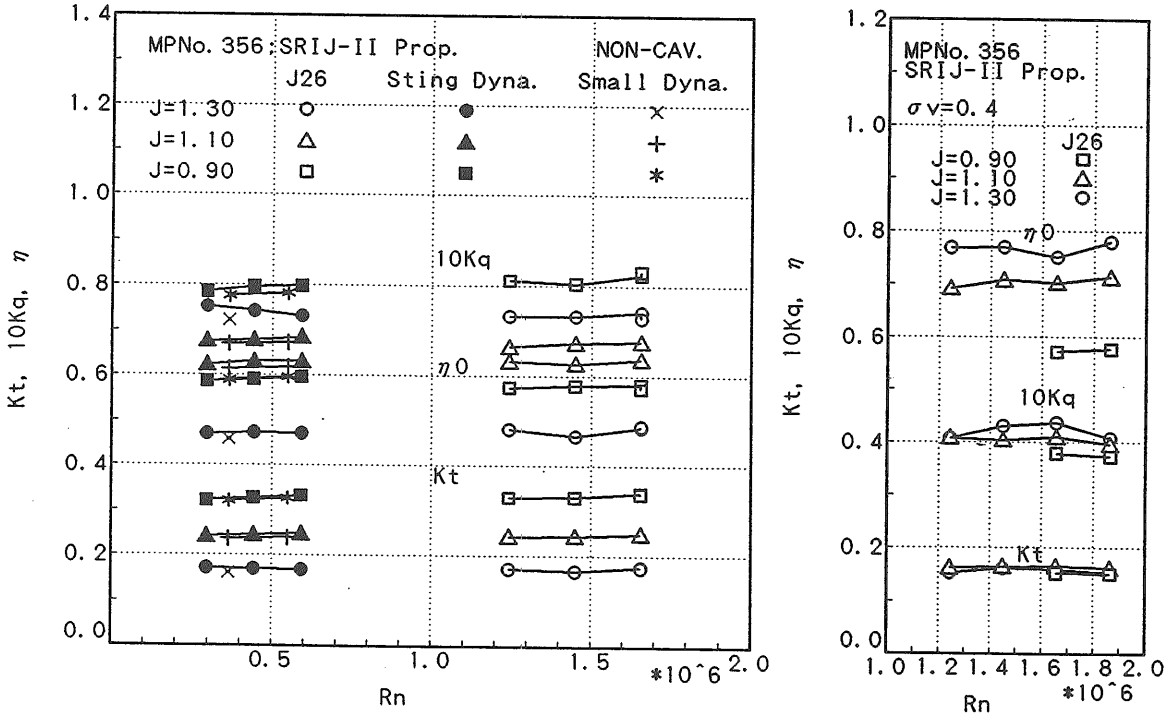

Fig. 4.24 (b) Viscous Effect on SRIJ-II Propeller Performance Measured by Using J26 Dynamometer