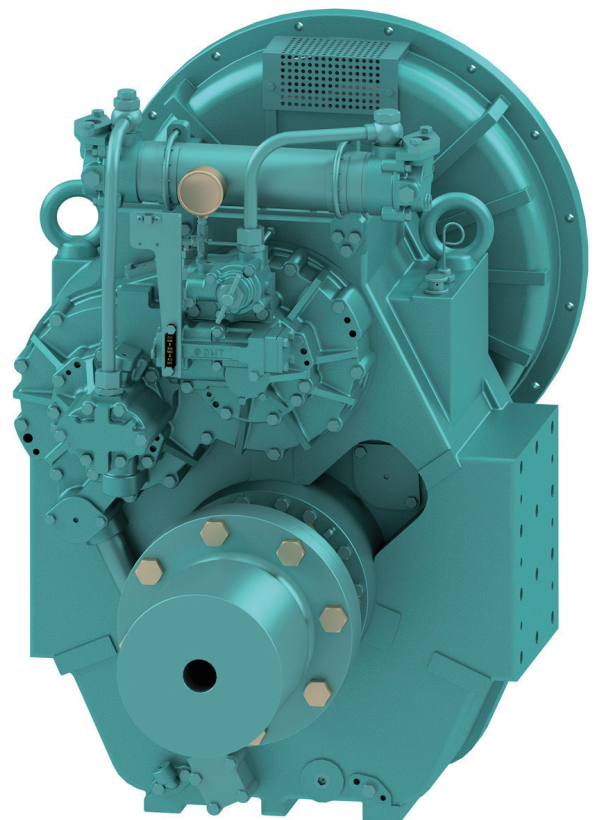


MARINE TRANSMISSION

74HP - 1549HP



**MARINE TRANSMISSION
HYDRAULIC STEERING SYSTEM
ELECTRIC STEERING SYSTEM
POWER TAKE OFF
SIDE THRUSTER
ELECTRONIC CONTROL SYSTEM
FLEXIBLE COUPLING_CENTA
HYDRAULIC PUMP, MOTOR
WATER MAKER**



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D-I Industrial Co.,Ltd. Introduction

D-I Industrial Co.,Ltd., a leading manufacturer of marine gear in Korea, has been providing Hydraulic Marine Transmissions, Power Take Offs and Steering Systems since 1990.

Growing together with customers by providing optimized specifications and ease of use grounded in original technology, D-I has been realizing customers satisfaction through outstanding quality and short lead time under ISO 9001.

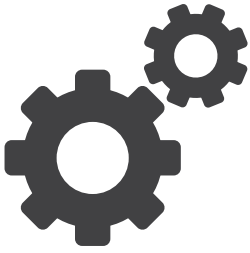
D-I Business Field



Marine transmission, Steering system, Power take off, Side Thruster, Flexible coupling, Electronic control system, Integral shaft supporter, Hydraulic pump.

D-I(Dong-I) has been fulfilling its mission with endless self innovation and challenges to ensure user's safety and convenient maritime activities in any ocean beyond Korea.

Marine Transmission



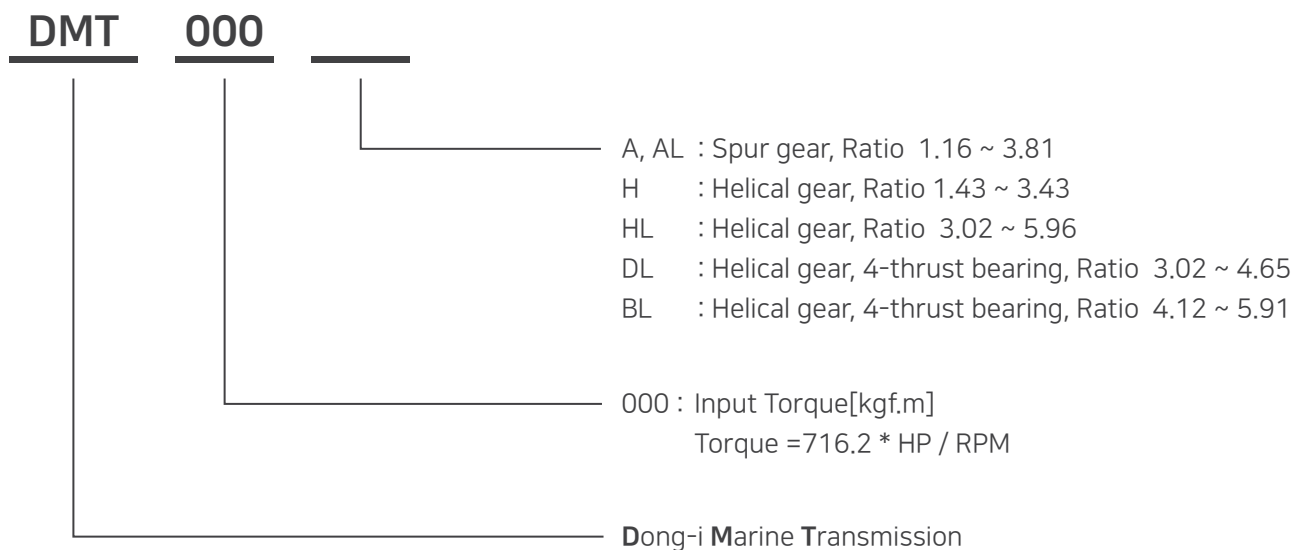
The D-I marine transmission described in this manual is the power-transmitting unit which transmits the power generated from Engine to Propeller. The main functions are the ahead, neutral, astern and reduction of speed at fixed rate. The marine transmission has the structure which can safely endure the power generated by propeller's propulsion.

Features

- Smaller and lighter than competitors' same level gearboxes
- No consumables except Corrosion-Resistant Zinc
- An easy-to-replaceable structure for bell housing
- Ease of maintenance



Structure Of The Model Name



How to choose the Marine Transmission

1. By referring to an Engine's performance graph, you check Maximum output torque of your Engine
 ※ Engine's Torque unit should be kilogram-force meter (kgf.m). If your measure unit is different, you should convert your engine torque into kilogram-force meter (kgf.m) by referring to the torque conversion below.
2. After you check your Engine's Torque, you should select the model having higher or same input torque of a gearbox than an engine's output torque by referring to gearbox's catalogue or D-I website.
 That means gearbox input torque (kgf.m) ≥ Engine output torque (kgf.m).
3. By referring to the gearbox's catalogue, you should check the ratio of gearbox.
4. Please check fly wheel standard to attach your gearbox to the engine. Then, you select the bell housing of gearbox which is satisfying with your engine's fly wheel standard.
5. Lastly, please check your option.
 Ex) Electric valve, Trolling valve, D-Trolling valve, Flexible coupling, L-Bracket etc.

Torque Conversion

1N.m (Newton Meter) = 0.102kgf.m(kilogram force)
 1lbf.ft (Pound-force feet) = 0.138kgf.m(kilogram force)
 1lbf.ft (Pound-force feet) = 1.365N.m (Newton Meter)

Ex1) Converting 1,234N.m into kilogram-force meter ▶ $1,234\text{N.m} \times 0.102 = 125.9\text{kgf.m}$
 Ex2) Converting 1,234lbf.ft into kilogram-force meter ▶ $1,234\text{lbf.ft} \times 0.138 = 170.2\text{kgf.m}$
 Ex3) Converting 1,234lbf.ft into Newton Meter ▶ $1,234\text{lbf.ft} \times 1.365 = 1684.41\text{N.m}$

Engine rated torque calculation
 (Calculate with engine kW)

$$\text{Rated Torque(kgf.m)} = 974 \times \frac{\text{Engine rated kW}}{\text{Engine rated RPM}}$$

Engine rated torque calculation
 (Calculate with engine HP)

$$\text{Rated Torque(kgf.m)} = 726.1 \times \frac{\text{Engine rated HP}}{\text{Engine rated RPM}}$$

D-I Marine Transmission Line-Up

Model	Ratio	Max Input Torque		Max Input RPM	Capacity/RPM		Capacity / RPM						Standard Bell Housing (SAE)	Dry Weight (kg)
		(kgf.m)	(N.m)		kW	HP	1800RPM		2100RPM		2300RPM			
							kW	HP	kW	HP	kW	HP		
DMT25AL	1.64*, 2.07, 2.52, 2.96, 3.32	30	294	3500	0.030	0.041	55	74	64	86	71	95	3, 4, 5	68
DMT50A	1.61*, 2.06, 2.45, 2.82, 3.12, 3.46	55	539	3000	0.056	0.075	101	136	118	159	129	174	1, 2, 3, 4	126
DMT90A	1.61*, 2.06, 2.45, 2.82, 3.12, 3.46	87	857	3000	0.089	0.120	161	216	188	253	206	276	1, 2, 3, 4	135
DMT100HL	4.07, 4.50, 4.95	89	873	3000	0.091	0.122	164	219	191	256	209	281	1, 2, 3	251
	5.29	86	843	3000	0.088	0.118	158	213	185	248	202	272		
	5.95	75	735	3000	0.076	0.103	138	185	161	216	176	236		
DMT100IV	1.21*, 1.54, 1.84, 2.12, 2.52	103	1011	4000	0.105	0.141	190	255	222	297	243	326	2, 3	148
DMT110A	1.77*, 2.09, 2.42, 2.82, 3.19, 3.81	110	1079	2800	0.112	0.151	202	272	236	317	259	348	1, 2, 3	179
DMT140H	1.97, 2.57, 3.03, 3.46	130	1275	2800	0.133	0.178	239	322	280	376	306	411	1, 2, 3	185
DMT135HL	4.07	131	1288	2800	0.134	0.180	241	325	282	379	309	415	1, 2, 3	269
	4.50	125	1229	2800	0.128	0.172	231	310	270	362	296	397		
	4.95	115	1128	2800	0.117	0.157	213	285	248	332	271	364		
DMTP5100	1.47*, 1.76*, 1.93*	168	1648	2500	0.172	0.231	310	416	361	485	396	532	1, 2, 3	215
	2.48, 3.08	150	1471	2500	0.153	0.206	276	370	322	433	353	474		
	3.46	130	1275	2500	0.133	0.178	240	322	280	376	307	411		
DMT150H	1.83*, 2.09, 2.51, 3.08, 3.43	168	1648	2500	0.172	0.231	310	416	361	485	396	532	1, 2	267
DMT170HL	4.04, 4.48	168	1648	2500	0.172	0.231	310	416	362	485	396	532	1, 2	326
DMT180HL	5.15, 5.96	168	1648	2500	0.172	0.231	310	416	361	485	396	532	1, 2	463
DMT190H	1.83*, 2.09, 2.51, 3.08, 3.43	180	1765	2500	0.184	0.247	332	446	387	520	425	570	1, 2	278
DMT190HL	4.04, 4.48	180	1765	2500	0.184	0.247	332	446	388	520	425	570	1, 2	334
DMT220DL	3.50*, 4.04	210	2059	2500	0.216	0.289	389	520	454	606	497	664	1, 2	403
	4.47	198	1942	2500	0.203	0.273	365	491	426	573	467	627		
	4.72	177	1735	2500	0.182	0.243	327	437	382	510	418	558		
DMT240H	1.50*, 1.97*, 2.44, 2.93, 3.40	218	2138	2500	0.223	0.299	402	540	469	630	514	690	0, 1	346
DMT260H	2.06, 2.50, 2.92, 3.26	258	2530	2500	0.264	0.354	476	639	556	746	608	817	0, 1	368
DMT260HL	3.53, 4.08, 4.52	258	2530	2500	0.264	0.354	476	639	556	746	608	817	0, 1	512
	5.04	239	2344	2500	0.245	0.328	441	592	515	690	564	757		
DMTP6500	5.11, 5.62*, 5.91	258	2530	2300	0.264	0.355	476	639	556	746	608	817	0, 1	834
	6.57*, 6.95	238	2334	2300	0.244	0.328	440	590	513	687	562	754		
DMT280H	2.06, 2.50, 2.92, 3.26	298	2927	2500	0.306	0.410	550	739	642	862	704	945	0, 1	383

* Special Order Ratio

※ The dry weight is the weight that excludes bell housing, coupling (rubber block, dual stage, Centa flexible) and propeller coupling from the standard scope of supply

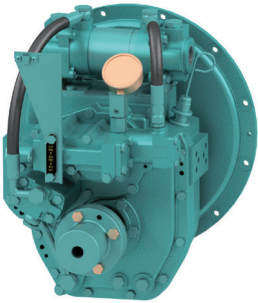
D-I Marine Transmission Line-Up

Model	Ratio	Max Input Torque		Max Input RPM	Capacity/RPM		Capacity / RPM						Standard Bell Housing (SAE)	Dry Weight (kg)
		(kgf.m)	(N.m)		kW	HP	1800RPM		2100RPM		2300RPM			
							kW	HP	kW	HP	kW	HP		
DMT300HL	3.56	298	2926	2300	0.305	0.410	550	739	642	862	703	944	0, 1	622
	4.13	292	2868	2300	0.300	0.402	540	724	630	845	691	926		
	4.59	286	2805	2300	0.293	0.393	528	708	616	827	675	905		
DMT330DL	3.56	298	2926	2400	0.305	0.410	550	739	642	862	703	944	0, 1	724
	4.13	292	2868	2400	0.300	0.402	540	724	630	845	691	926		
	4.59	286	2805	2400	0.293	0.393	528	708	616	827	675	905		
DMT400H	1.43*, 1.72*, 2.03	453	4443	2300	0.464	0.623	836	1122	976	1310	1069	1434	0, 1	515
	2.46	403	3953	2300	0.413	0.554	744	998	869	1165	952	1276		
	2.75	391	3835	2300	0.401	0.537	722	969	843	1130	923	1238		
DMT430H	2.05, 2.43, 2.93	453	4443	2300	0.464	0.623	836	1122	976	1310	1069	1434	0, 1	664
	3.23	430	4218	2300	0.440	0.591	794	1065	927	1243	1015	1361		
	3.40	408	4002	2300	0.418	0.418	754	1011	880	1180	964	1292		
DMT460HL	3.02*, 3.28*, 3.56, 4.07	453	4445	2300	0.465	0.623	837	1123	976	1310	1070	1435	0, 1	763
	4.48	409	4014	2300	0.420	0.563	756	1013	882	1183	966	1296		
	4.95	374	3668	2300	0.383	0.514	691	926	806	1081	883	1185		
DMT450DL	3.02*, 3.28*, 3.56, 4.07	453	4445	2400	0.465	0.623	837	1123	976	1310	1070	1435	0, 1	964
	4.48	409	4014	2400	0.420	0.563	756	1014	882	1183	966	1296		
	4.95	374	3668	2400	0.383	0.514	691	926	806	1081	883	1185		
DMT550H	1.43*, 1.64*, 1.81*, 2.03	551	5407	2300	0.565	0.758	1018	1366	1188	1594	1301	1746	0, 1	630
	2.33	537	5269	2300	0.551	0.739	993	1332	1158	1554	1269	1701		
	2.60	485	4757	2300	0.497	0.667	896	1201	1046	1403	1145	1536		
	2.91	404	3963	2300	0.415	0.556	747	1001	871	1168	954	1279		
DMT561HL	3.02*, 3.28*, 3.56, 4.07	550	5395	2300	0.564	0.756	1016	1363	1185	1590	1298	1742	0	898
	4.48	526	5160	2300	0.540	0.723	972	1303	1134	1521	1242	1666		
	4.95	435	4267	2300	0.446	0.598	804	1078	938	1258	1027	1377		
DMT600DL	3.02*, 3.28*, 3.56, 4.07	625	6131	2200	0.641	0.860	1154	1549	1347	1807	-	-	0	1138
	4.48	614	6023	2200	0.630	0.845	1135	1522	1324	1775	-	-		
	4.95	558	5473	2200	0.572	0.768	1031	1383	1203	1614	-	-		
DMT600BL	4.12, 4.48	625	6131	2300	0.641	0.860	1155	1549	1347	1807	1476	1980	0	1489
	5.11	587	5758	2300	0.602	0.808	1085	1455	1266	1698	1386	1859		
	5.62	545	5346	2300	0.559	0.750	1007	1350	1175	1576	1287	1726		
	5.91	499	4895	2300	0.512	0.686	922	1237	1076	1443	1178	1580		

* Special Order Ratio

※ The dry weight is the weight that excludes bell housing, coupling (rubber block, dual stage, Centa flexible) and propeller coupling from the standard scope of supply

DMT25AL

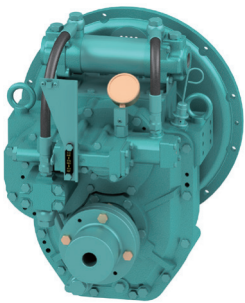


Ratio	1.64*, 2.07, 2.52, 2.96, 3.32
Max Input Torque (kgf.m / N.m)	30 / 294
Capacity / RPM (kW / HP)	0.030 / 0.041
Capacity / 1800RPM (kW / HP)	55 / 75
Max Input RPM	3500
Standard Bell Housing (SAE)	3, 4, 5
Dry Weight (kg)	68
Standard Scope Of Supply	Bell Housing, Rubber Block Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket

※ SAE4 bell housing comes standard with A rubber block coupling.

* Special Order Ratio

DMT50A

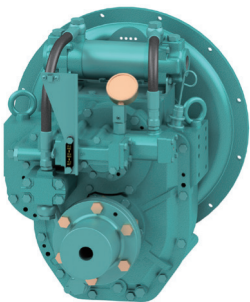


Ratio	1.61*, 2.06, 2.45, 2.82, 3.12, 3.46
Max Input Torque (kgf.m / N.m)	55 / 539
Capacity / RPM (kW / HP)	0.056 / 0.076
Capacity / 1800RPM (kW / HP)	101 / 138
Max Input RPM	3000
Standard Bell Housing (SAE)	1, 2, 3, 4
Dry Weight (kg)	126
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket

※ SAE4 bell housing comes standard with A rubber block coupling.

* Special Order Ratio

DMT90A

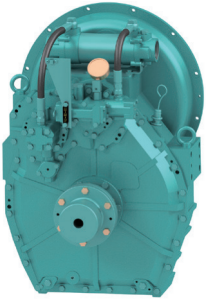


Ratio	1.61*, 2.06, 2.45, 2.82, 3.12, 3.46
Max Input Torque (kgf.m / N.m)	87 / 857
Capacity / RPM (kW / HP)	0.089 / 0.122
Capacity / 1800RPM (kW / HP)	161 / 219
Max Input RPM	3000
Standard Bell Housing (SAE)	1, 2, 3, 4
Dry Weight (kg)	135
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket

※ SAE4 bell housing comes standard with A rubber block coupling.

* Special Order Ratio

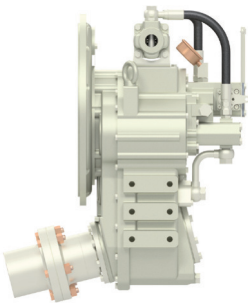
DMT100HL



Ratio	4.07, 4.50, 4.95	5.29	5.95
Max Input Torque (kgf.m / N.m)	89 / 873	86 / 843	75 / 735
Capacity / RPM (kW / HP)	0.091 / 0.124	0.088 / 0.120	0.076 / 0.104
Capacity / 1800RPM (kW / HP)	164 / 223	158 / 216	138 / 188
Max Input RPM	3000		
Standard Bell Housing (SAE)	1, 2, 3		
Dry Weight (kg)	251		
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

DMT100IV

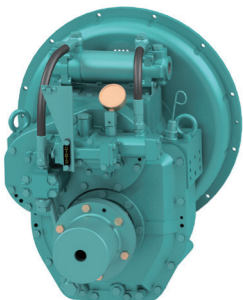
V Drive



Ratio	1.21*, 1.54, 1.84 2.12, 2.52
Max Input Torque (kgf.m / N.m)	103 / 1011
Capacity / RPM (kW / HP)	0.105 / 0.143
Capacity / 1800RPM (kW / HP)	190 / 259
Max Input RPM	4000
Standard Bell Housing (SAE)	2, 3
Dry Weight (kg)	148
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket

* Special Order Ratio

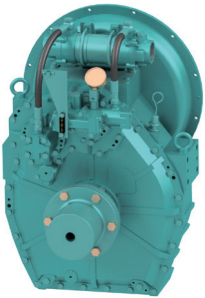
DMT110A



Ratio	1.77*, 2.09, 2.42 2.82, 3.19, 3.81
Max Input Torque (kgf.m / N.m)	110 / 1079
Capacity / RPM (kW / HP)	0.112 / 0.153
Capacity / 1800RPM (kW / HP)	202 / 276
Max Input RPM	2800
Standard Bell Housing (SAE)	1, 2, 3
Dry Weight (kg)	179
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket

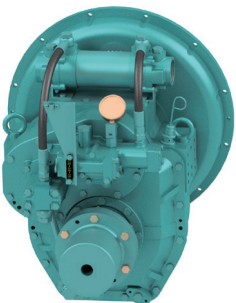
* Special Order Ratio

DMT135HL



Ratio	4.07	4.50	4.95
Max Input Torque (kgf.m / N.m)	131 / 1288	125 / 1229	115 / 1128
Capacity / RPM (kW / HP)	0.134 / 0.183	0.128 / 0.174	0.117 / 0.160
Capacity / 1800RPM (kW / HP)	241 / 329	231 / 314	213 / 289
Max Input RPM	3000		
Standard Bell Housing (SAE)	1, 2, 3		
Dry Weight (kg)	269		
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

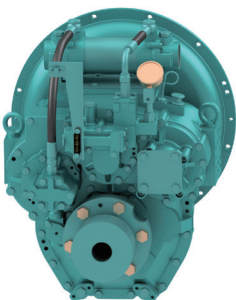
DMT140H



Ratio	1.97, 2.57, 3.03 3.46
Max Input Torque (kgf.m / N.m)	130 / 1275
Capacity / RPM (kW / HP)	0.133 / 0.181
Capacity / 1800RPM (kW / HP)	239 / 326
Max Input RPM	2800
Standard Bell Housing (SAE)	1, 2, 3
Dry Weight (kg)	185
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, D-Trolling Valve Mounting Bracket

DMTP5100

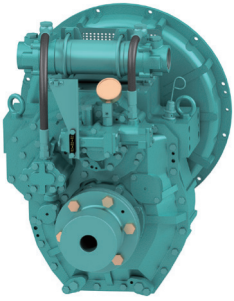
Live PTO



Ratio	1.47*, 1.76*, 1.93*	2.48, 3.08	3.46
Max Input Torque (kgf.m / N.m)	168 / 1648	150 / 1471	130 / 1275
Capacity / RPM (kW / HP)	0.172 / 0.234	0.153 / 0.209	0.133 / 0.181
Capacity / 1800RPM (kW / HP)	310 / 422	276 / 376	240 / 326
Max Input RPM	2500		
Standard Bell Housing (SAE)	1, 2, 3		
Dry Weight (kg)	215		
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

* Special Order Ratio

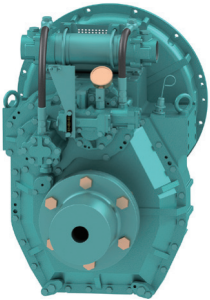
DMT150H



Ratio	1.83*, 2.09, 2.51 3.08, 3.43
Max Input Torque (kgf.m / N.m)	168 / 1648
Capacity / RPM (kW / HP)	0.172 / 0.234
Capacity / 1800RPM (kW / HP)	310 / 422
Max Input RPM	2500
Standard Bell Housing (SAE)	1, 2
Dry Weight (kg)	267
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, D-Trolling Valve, Mounting Bracket, Centa Flexible Coupling

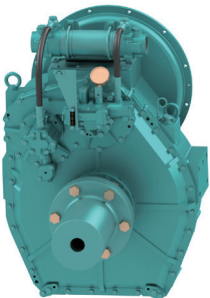
* Special Order Ratio

DMT170HL



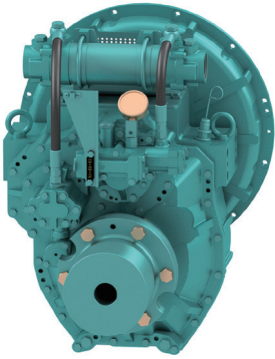
Ratio	4.04, 4.48
Max Input Torque (kgf.m / N.m)	168 / 1648
Capacity / RPM (kW / HP)	0.172 / 0.234
Capacity / 1800RPM (kW / HP)	310 / 422
Max Input RPM	2500
Standard Bell Housing (SAE)	1, 2
Dry Weight (kg)	326
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket, Centa Flexible Coupling

DMT180HL



Ratio	5.15, 5.96
Max Input Torque (kgf.m / N.m)	168 / 1648
Capacity / RPM (kW / HP)	0.172 / 0.234
Capacity / 1800RPM (kW / HP)	310 / 422
Max Input RPM	2500
Standard Bell Housing (SAE)	1, 2
Dry Weight (kg)	463
Standard Scope Of Supply	Bell Housing, Dual Stage Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket, Centa Flexible Coupling

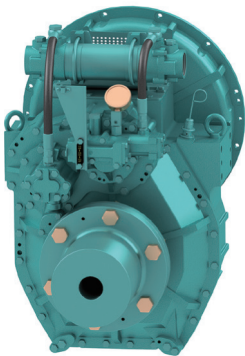
DMT190H



Ratio	1.83*, 2.09, 2.51 3.08, 3.43
Max Input Torque (kgf.m / N.m)	180 / 1765
Capacity / RPM (kW / HP)	0.184 / 0.251
Capacity / 1800RPM (kW / HP)	332 / 452
Max Input RPM	2500
Standard Bell Housing (SAE)	1, 2
Dry Weight (kg)	278
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, D-Trolling Valve, Mounting Bracket

* Special Order Ratio

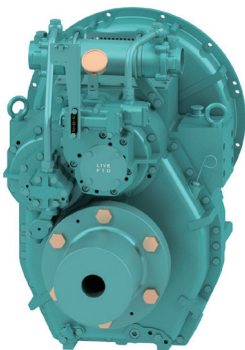
DMT190HL



Ratio	4.04, 4.48
Max Input Torque (kgf.m / N.m)	180 / 1765
Capacity / RPM (kW / HP)	0.184 / 0.251
Capacity / 1800RPM (kW / HP)	332 / 452
Max Input RPM	2500
Standard Bell Housing (SAE)	1, 2
Dry Weight (kg)	334
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket

DMT220DL

4 Thrust Bearing Type, Live PTO



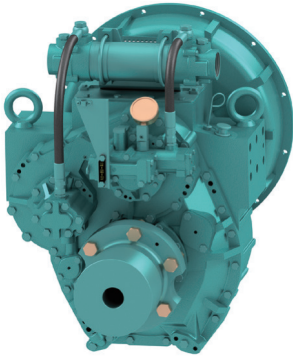
Ratio	3.50*, 4.04	4.47	4.72
Max Input Torque (kgf.m / N.m)	210 / 2059	198 / 1942	177 / 1735
Capacity / RPM (kW / HP)	0.216 / 0.293	0.203 / 0.277	0.182 / 0.243
Capacity / 1800RPM (kW / HP)	389 / 527	365 / 499	327 / 437
Max Input RPM	2500		
Standard Bell Housing (SAE)	1, 2		
Dry Weight (kg)	403		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler, Live PTO		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

※ SAE2 bell housing comes standard with a dual stage coupling.

※ Please refer to the page 20 for a description of the DL/BL type model.

*Special Order Ratio

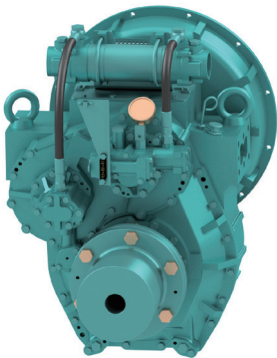
DMT240H



Ratio	1.50*, 1.97*, 2.44 2.93, 3.40
Max Input Torque (kgf.m / N.m)	218 / 2138
Capacity / RPM (kW / HP)	0.223 / 0.304
Capacity / 1800RPM (kW / HP)	402 / 547
Max Input RPM	2500
Standard Bell Housing (SAE)	0, 1
Dry Weight (kg)	346
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, D-Trolling Valve, Mounting Bracket

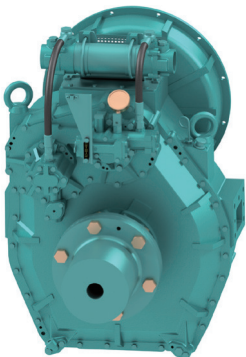
* Special Order Ratio

DMT260H



Ratio	2.06, 2.50, 2.92 3.26
Max Input Torque (kgf.m / N.m)	258 / 2530
Capacity / RPM (kW / HP)	0.264 / 0.360
Capacity / 1800RPM (kW / HP)	476 / 648
Max Input RPM	2500
Standard Bell Housing (SAE)	0, 1
Dry Weight (kg)	368
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket

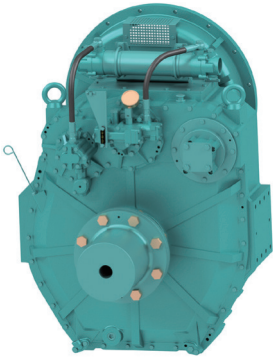
DMT260HL



Ratio	3.53, 4.08, 4.52	5.04
Max Input Torque (kgf.m / N.m)	258 / 2530	239 / 2344
Capacity / RPM (kW / HP)	0.264 / 0.360	0.245 / 0.333
Capacity / 1800RPM (kW / HP)	476 / 648	441 / 600
Max Input RPM	2500	
Standard Bell Housing (SAE)	0, 1	
Dry Weight (kg)	512	
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler	
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket	

DMTP6500

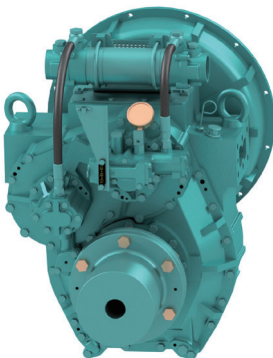
Live PTO



Ratio	5.11, 5.62*, 5.91	6.57*, 6.95
Max Input Torque (kgf.m / N.m)	258 / 2530	238 / 2334
Capacity / RPM (kW / HP)	0.264 / 0.360	0.244 / 0.332
Capacity / 1800RPM (kW / HP)	476 / 648	440 / 598
Max Input RPM	2300	
Standard Bell Housing (SAE)	0, 1	
Dry Weight (kg)	834	
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler, Live PTO	
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket	

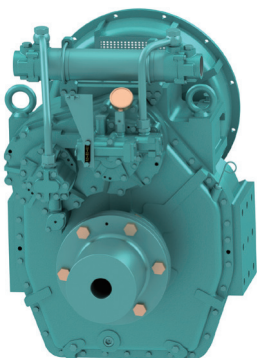
* Special Order Ratio

DMT280H



Ratio	2.06, 2.50, 2.92 3.26
Max Input Torque (kgf.m / N.m)	298 / 2927
Capacity / RPM (kW / HP)	0.306 / 0.416
Capacity / 1800RPM (kW / HP)	550 / 749
Max Input RPM	2500
Standard Bell Housing (SAE)	0, 1
Dry Weight (kg)	383
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, D-Trolling Valve, Mounting Bracket, Centa Flexible Coupling

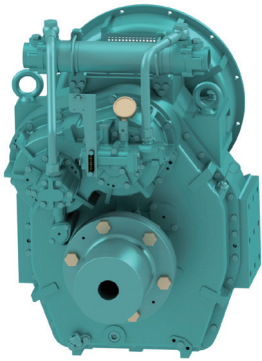
DMT300HL



Ratio	3.56	4.13	4.59
Max Input Torque (kgf.m / N.m)	298 / 2926	292 / 2868	286 / 2805
Capacity / RPM (kW / HP)	0.305 / 0.416	0.300 / 0.408	0.293 / 0.399
Capacity / 1800RPM (kW / HP)	550 / 749	540 / 734	528 / 718
Max Input RPM	2300		
Standard Bell Housing (SAE)	0, 1		
Dry Weight (kg)	622		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

DMT330DL

4 Thrust Bearing Type

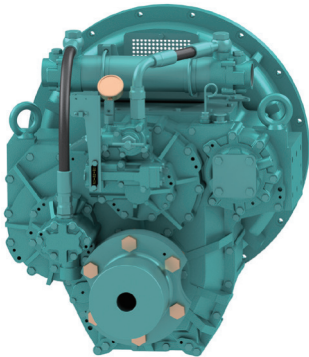


Ratio	3.56	4.13	4.59
Max Input Torque (kgf.m / N.m)	298 / 2926	292 / 2868	286 / 2805
Capacity / RPM (kW / HP)	0.305 / 0.416	0.300 / 0.408	0.293 / 0.399
Capacity / 1800RPM (kW / HP)	550 / 749	540 / 734	528 / 718
Max Input RPM	2400		
Standard Bell Housing (SAE)	0, 1		
Dry Weight (kg)	724		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

※ Please refer to the page 20 for a description of the DL/BL type model.

DMT400H

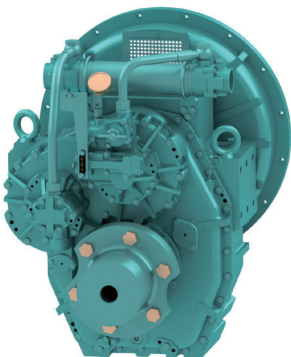
Live PTO



Ratio	1.43*, 1.72*, 2.03	2.46	2.75
Max Input Torque (kgf.m / N.m)	453 / 4443	403 / 3953	391 / 3835
Capacity / RPM (kW / HP)	0.464 / 0.632	0.413 / 0.562	0.401 / 0.545
Capacity / 1800RPM (kW / HP)	836 / 1138	744 / 1012	722 / 982
Max Input RPM	2300		
Standard Bell Housing (SAE)	0, 1		
Dry Weight (kg)	515		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler, Live PTO		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

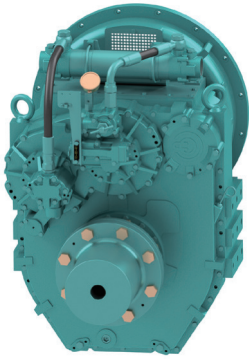
* Special Order Ratio

DMT430H



Ratio	2.05, 2.43, 2.93	3.23	3.40
Max Input Torque (kgf.m / N.m)	453 / 4443	430 / 4218	408 / 4002
Capacity / RPM (kW / HP)	0.464 / 0.632	0.44 / 0.600	0.418 / 0.569
Capacity / 1800RPM (kW / HP)	836 / 1138	794 / 1080	754 / 1025
Max Input RPM	2300		
Standard Bell Housing (SAE)	0, 1		
Dry Weight (kg)	664		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, D-trolling Valve, Mounting Bracket		

DMT460HL

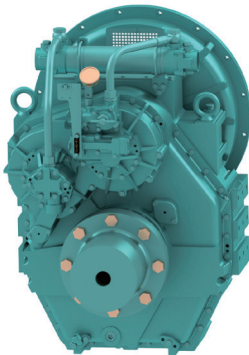


Ratio	3.02*, 3.28*, 3.56, 4.07	4.48	4.95
Max Input Torque (kgf.m / N.m)	453 / 4445	409 / 4014	374 / 3668
Capacity / RPM (kW / HP)	0.465 / 0.632	0.420 / 0.571	0.383 / 0.522
Capacity / 1800RPM (kW / HP)	837 / 1139	756 / 1028	691 / 939
Max Input RPM	2300		
Standard Bell Housing (SAE)	0, 1		
Dry Weight (kg)	763		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

* Special Order Ratio

DMT450DL

4 Thrust Bearing Type

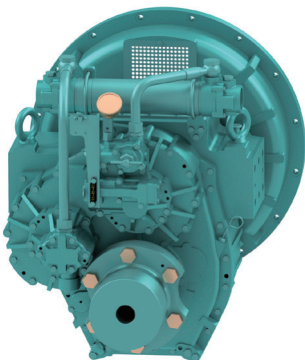


Ratio	3.02*, 3.28*, 3.56, 4.07	4.48	4.95
Max Input Torque (kgf.m / N.m)	453 / 4445	409 / 4014	374 / 3668
Capacity / RPM (kW / HP)	0.465 / 0.632	0.420 / 0.571	0.383 / 0.522
Capacity / 1800RPM (kW / HP)	837 / 1139	756 / 1028	691 / 939
Max Input RPM	2400		
Standard Bell Housing (SAE)	0, 1		
Dry Weight (kg)	964		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

※ Please refer to the page 20 for a description of the DL/BL type model.

*Special Order Ratio

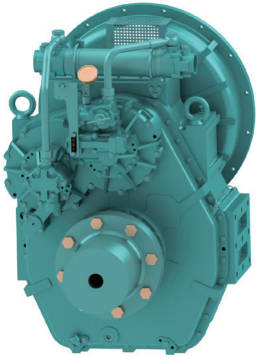
DMT550H



Ratio	1.43*, 1.64* 1.81*, 2.03	2.33	2.60	2.91
Max Input Torque (kgf.m / N.m)	551 / 5407	537 / 5269	485 / 4757	404 / 3963
Capacity / RPM (kW / HP)	0.565 / 0.769	0.551 / 0.750	0.497 / 0.676	0.415 / 0.565
Capacity / 1800RPM (kW / HP)	1018 / 1385	993 / 1350	896 / 1218	747 / 1015
Max Input RPM	2300			
Standard Bell Housing (SAE)	0, 1			
Dry Weight (kg)	630			
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler			
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket			

* Special Order Ratio

DMT561HL



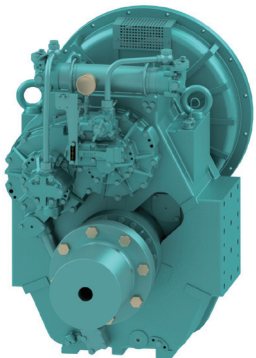
Ratio	3.02*, 3.28*, 3.56, 4.07	4.48	4.95
Max Input Torque (kgf.m / N.m)	550 / 5395	526 / 5160	435 / 4267
Capacity / RPM (kW / HP)	0.564 / 0.767	0.54 / 0.734	0.446 / 0.606
Capacity / 1800RPM (kW / HP)	1016 / 1382	972 / 1321	804 / 1093
Max Input RPM	2300		
Standard Bell Housing (SAE)	0		
Dry Weight (kg)	898		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

※ Please refer to the page 20 for a description of the DL/BL type model.

* Special Order Ratio

DMT600DL

4 Thrust Bearing Type



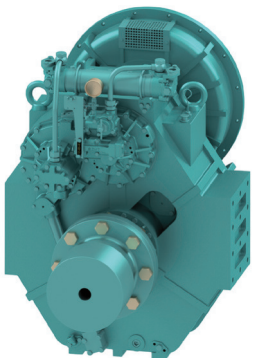
Ratio	3.02*, 3.28*, 3.56, 4.07	4.48	4.95
Max Input Torque (kgf.m / N.m)	625 / 6131	614 / 6023	558 / 5473
Capacity / RPM (kW / HP)	0.641 / 0.872	0.630 / 0.857	0.572 / 0.779
Capacity / 1800RPM (kW / HP)	1154 / 1570	1135 / 1543	1031 / 1402
Max Input RPM	2200		
Standard Bell Housing (SAE)	0		
Dry Weight (kg)	1138		
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler		
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket		

※ Please refer to the page 20 for a description of the DL/BL type model.

* Special Order Ratio

DMT600BL

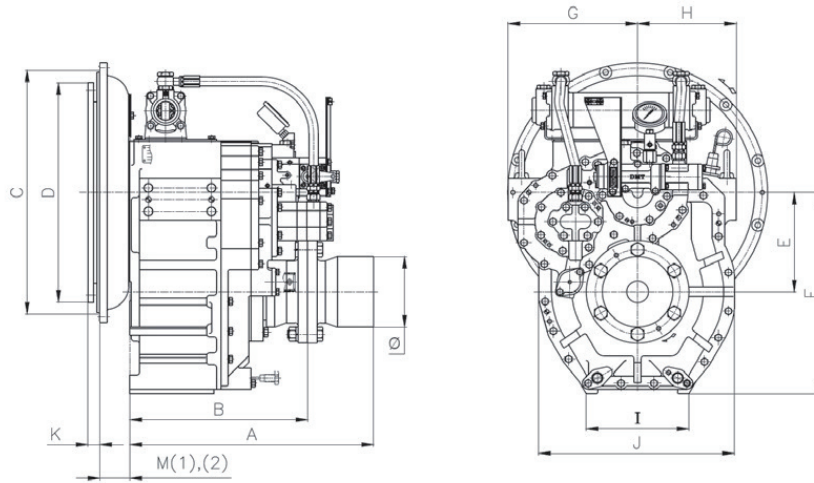
4 Thrust Bearing Type



Ratio	4.12, 4.48	5.11	5.62	5.91
Max Input Torque (kgf.m / N.m)	625 / 6131	587 / 5758	545 / 5346	499 / 4895
Capacity / RPM (kW / HP)	0.641 / 0.872	0.602 / 0.819	0.559 / 0.760	0.512 / 0.696
Capacity / 1800RPM (kW / HP)	1155 / 1570	1085 / 1475	1007 / 1369	922 / 1254
Max Input RPM	2300			
Standard Bell Housing (SAE)	0			
Dry Weight (kg)	1489			
Standard Scope Of Supply	Bell Housing, Centa Flexible Coupling, Propeller Coupling, Manual Conversion Valve, Cable Bracket, Oil Cooler			
Options	Electronic Conversion Valve(12V,24V), Manual Trolling Valve, Mounting Bracket			

※ Please refer to the page 20 for a description of the DL/BL type model.

Dimensions : A, AL, H Model



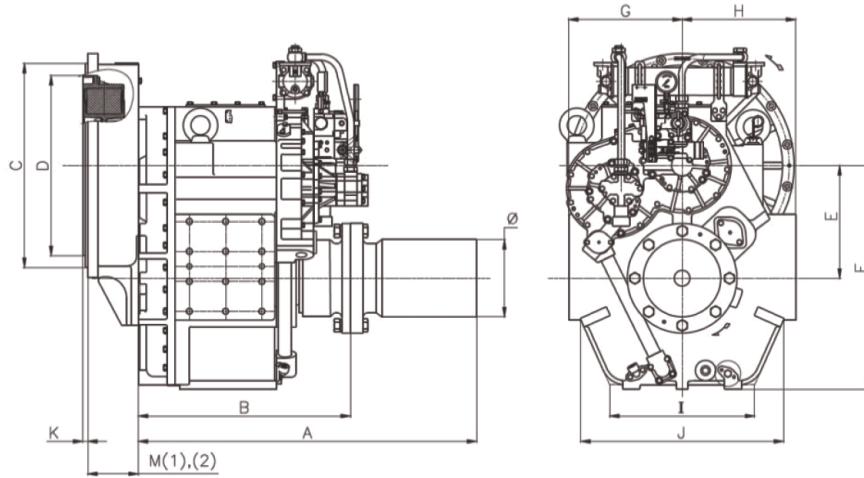
mm

Model	A	B	E	F	G	H	I	J	Ø
DMT25AL	355	255	118	244	177	135	157	260	72
DMT50A	403	286	160	323	217	175	170	326	100
DMT90A	471	325	160	323	228	175	170	326	120
DMT110A	487	335	195	388	249	197	224	386	140
DMT140H	496	344	195	388	249	197	224	386	140
DMTP5100	531	391	195	390	270	250	206	383	150
DMT150H	518	378	211	428	275	210	218	415	150
DMT190H	590	390	211	428	275	210	218	415	185
DMT240H	639	439	227	458	330	240	254	447	185
DMT260H	653	453	254	484	330	235	276	458	190
DMT280H	653	453	254	484	330	235	276	458	190
DMT400H	705	505	236	450	360	360	266	436	190
DMT430H	720	520	285	563	375	282	333	525	185
DMT550H	771	551	236	464	360	275	282	449	190

Model	Bell Housing Standard	Driving Ring	C	D	M(1)	M(2)	K
DMT25AL	SAE#3	11.5"	409	352	34	-	39
		10"	361	314	30	-	53
	SAE#4	7.5"	361	241	30	-	30
	SAE#5	7.5"	314	241	24	-	30
DMT50A	SAE#1	14"	511	466	75	-	25
		11.5"	447	352	35	-	39
	SAE#2	11.5"	447	352	35	-	39
DMT90A	SAE#3	11.5"	409	352	35	-	39
		10"	361	314	50	-	53
	SAE#4	10"	361	314	50	-	53
DMT110A	SAE#1	14"	511	466	75	-	25
		11.5"	447	352	35	-	39
	SAE#2	11.5"	447	352	35	-	39
DMT140H	SAE#3	11.5"	409	352	35	-	39
		11.5"	409	352	35	-	39
	SAE#3	11.5"	409	352	35	-	39
DMT100IV	SAE#2	11.5"	447	352	35	-	39
		11.5"	409	352	35	-	39
	SAE#3	11.5"	409	352	35	-	39
DMTP5100	SAE#1	14"	511	466	64	-	25
		11.5"	447	352	46	-	39
	SAE#2	11.5"	447	352	46	-	39
DMT150H	SAE#3	11.5"	409	352	69	-	39
		11.5"	409	352	69	-	39
	SAE#1	14"	511	466	64	88	25
DMT190H	SAE#2	11.5"	447	352	46	-	39
		11.5"	447	352	46	-	39
	SAE#2	11.5"	447	352	46	-	39
DMT240H	SAE#0	18"	647	571	-	130	15
		14"	647	466	-	130	25
	SAE#0	14"	647	466	-	130	25
DMT260H	SAE#1	14"	511	466	-	122	25
		14"	511	466	-	122	25
	SAE#1	14"	511	466	-	122	25
DMT280H	SAE#0	18"	647	571	-	130	15
		14"	647	466	-	130	25
	SAE#0	14"	647	466	-	130	25
DMT400H	SAE#1	14"	511	466	-	122	25
		14"	511	466	-	122	25
	SAE#1	14"	511	466	-	122	25
DMT430H	SAE#0	18"	647	571	-	130	15
		14"	511	466	-	122	25
	SAE#0	18"	647	571	-	130	15
DMT550H	SAE#1	14"	511	466	-	122	25
		14"	511	466	-	122	25
	SAE#1	14"	511	466	-	122	25

• M(1) : Dual Stage, Rubber Block Coupling • M(2) : Centa Flexible Coupling

Dimensions : HL, DL, BL Model



mm

Model	A	B	E	F	G	H	I	J	Ø
DMT100HL	501	351	274	563	284	284	370	552	134
DMT135HL	503	351	274	563	284	284	370	552	148
DMT170HL	580	390	261	521	280	258	316	510	180
DMT180HL	617	427	331	667	337	337	425	654	180
DMT190HL	625	405	261	530	280	258	307	510	200
DMT220DL	609	419	261	529	280	258	334	510	180
DMT260HL	673	453	331	662	337	337	432	654	200
DMTP6500	777	527	415	842	440	440	448	756	220
DMT300HL	673	453	319	647	330	330	438	660	200
DMT330DL	689	469	319	647	330	330	428	660	200
DMT460HL	781	531	357	698	360	360	377	659	220
DMT450DL	782	532	357	713	360	360	416	659	245
DMT561HL	902	552	357	710	360	360	460	681	220
DMT600DL	1021	671	357	710	360	360	460	642	245
DMT600BL	1037	687	415	843	440	440	460	811	300

Model	Bell Housing Standard	Driving Ring	C	D	M(1)	M(2)	K
DMT100HL DMT135HL	SAE #1	14"	511	466	81	-	25
	SAE #2	11.5"	447	352	44	-	39
	SAE #3	11.5"	409	352	44	-	39
DMT170HL DMT180HL DMT190HL	SAE #1	14"	511	466	64	88	25
	SAE #2	11.5"	447	352	46	-	39
		SAE #1	14"	511	466	64	88
DMT220DL	SAE #1	14"	511	466	-	88	25
	SAE #2	11.5"	447	352	46	-	39
	SAE #0	18"	647	571	-	130	15
DMT260HL DMTP6500	SAE #0	14"	647	466	-	130	25
	SAE #1	14"	511	466	-	122	25
	SAE #0	18"	647	571	-	130	15
DMT300HL DMT330DL	SAE #0	14"	647	466	-	130	25
	SAE #1	14"	511	466	-	122	25
	SAE #0	18"	647	571	-	130	15
DMT460HL DMT450DL	SAE #0	14"	647	466	-	130	25
	SAE #1	14"	511	466	-	122	25
	SAE #0	18"	647	571	-	160	15
DMT561HL	SAE #0	18"	647	571	-	160	15
DMT600DL	SAE #0	18"	647	571	-	160	15
DMT600BL	SAE #0	18"	647	571	-	160	15

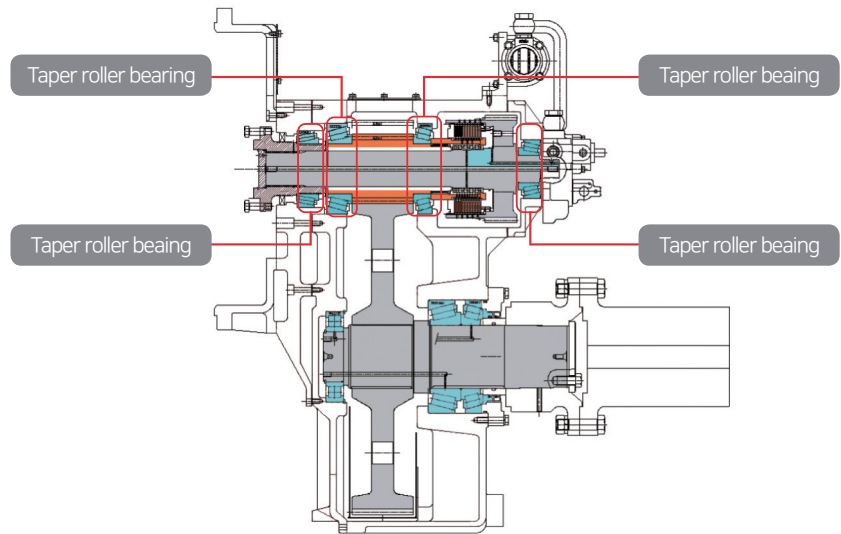
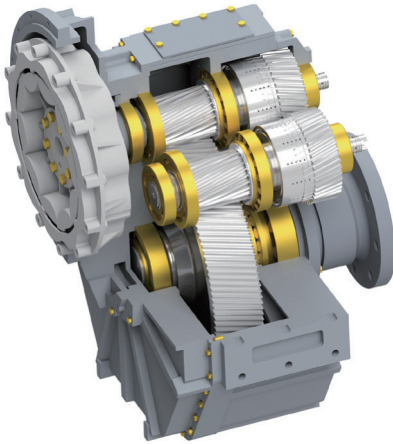
• M(1) : Dual Stage, Rubber Block Coupling • M(2) : Centa Flexible Coupling

DL/BL Model

4 thrust bearings supporting drive shaft.

Minimizing the variations on the power train at any moment

Additional 2 thrust bearings assembled to the drive gear itself keep always correct gear contact areas restraining shaft bending and enduring thrust power even in extraordinary cases of overloaded.



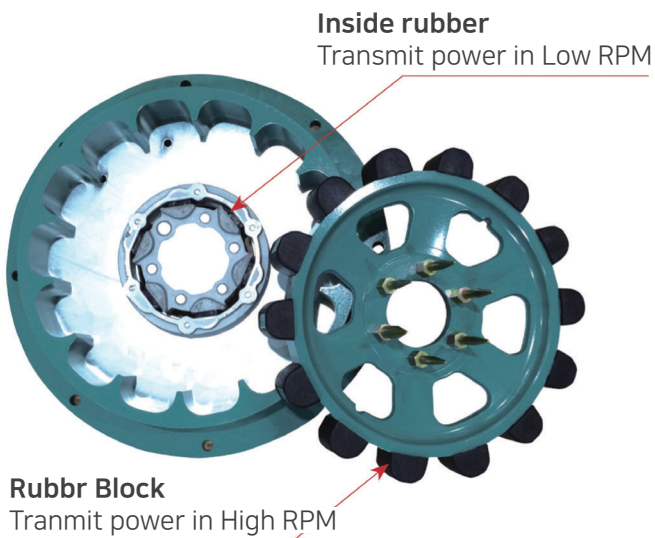
DL /BL Model Features

- Designed in accordance with DNV GL certification rule.
- Applying the core technology tolerating severe working conditions.
- Highly elastic coupling of Centa applied.
- Easy maintenance structure.
- Compact & light weight.

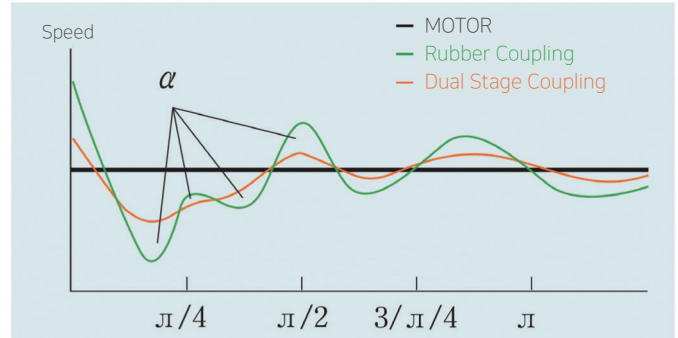
Model	Ratio	Max Input Torque		Max Input RPM	Capacity/RPM		Capacity/1800RPM		Standard Bell Housing (SAE)
		(kgf.m)	(N.m)		kW	HP	kW	HP	
DMT220DL	3.50*, 4.04	210	2059	2500	0.216	0.289	389	520	1, 2
	4.47	198	1942	2500	0.203	0.273	365	491	
	4.72	177	1735	2500	0.182	0.243	327	437	
DMT330DL	3.56	298	2926	2400	0.305	0.410	550	739	0, 1
	4.13	292	2868	2400	0.300	0.402	540	724	
	4.59	286	2805	2400	0.293	0.393	528	708	
DMT450DL	3.02*, 3.28*, 3.56, 4.07	453	4445	2400	0.465	0.623	837	1123	0, 1
	4.48	409	4014	2400	0.420	0.563	756	1014	
	4.95	374	3668	2400	0.383	0.514	691	926	
DMT600DL	3.02*, 3.28*, 3.56, 4.07	625	6131	2200	0.641	0.860	1154	1549	0
	4.48	614	6023	2200	0.630	0.845	1135	1522	
	4.95	558	5473	2200	0.572	0.768	1031	1383	
DMT600BL	4.12, 4.48	625	6131	2300	0.641	0.860	1155	1549	0
	5.11	587	5758	2300	0.602	0.808	1085	1455	
	5.62	545	5346	2300	0.559	0.750	1007	1350	
	5.91	499	4895	2300	0.512	0.686	922	1237	

*Special Order Ratio

Dual Stage Coupling



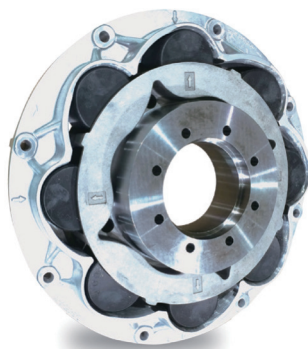
Factors of Angle Speed



- ※ DUAL STAGE RUBBER BLOCKS absorb the impacts & noise occurred from connecting parts.
- ※ And they also decrease the vibrations following the engine explosion timing.

The Dual Stage Coupling has 2 kinds of rubber blocks to reduce noise and vibration in different RPM section. Inner blocks transmit power in low RPM section and outer blocks transmit power in high RPM (over 1,000RPM) section

Centa Flexible Coupling



CENTAFLEX-R TYPE



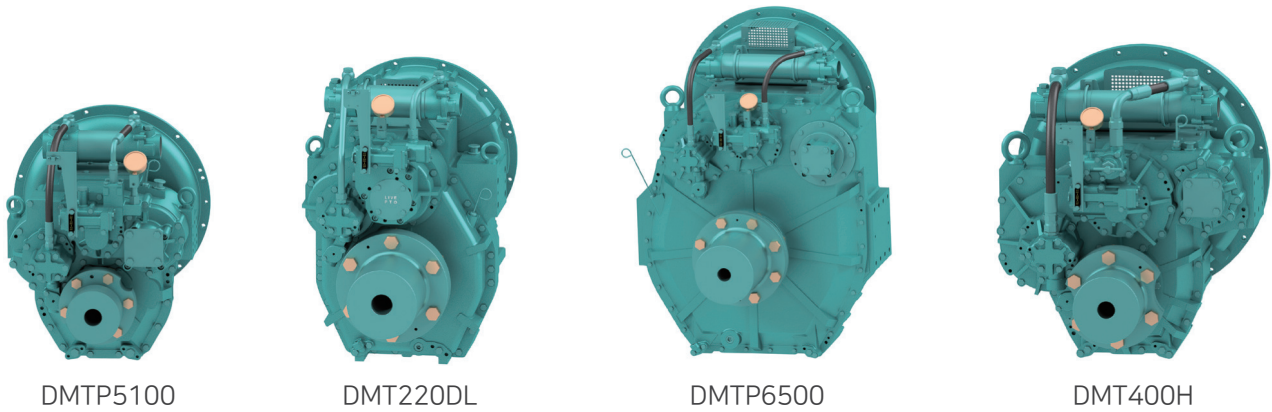
FREE STANDING TYPE

The Flexible Coupling protects propulsion shaft system by reducing and absorbing vibration torques from engine operation and impact torque in clutch shifting.

With Torque Limit application, even when the rubber parts are damaged, emergency power transmissions are available.

Marine Transmission with Live PTO

- Live PTO is always running when the engine is running
- A hydraulic pump that needs to be driven at all times can be attached



Live PTO Specification

No	Model	Output HP /1800rpm	Output Torque /1800rpm	Rotation Direction	Pump plate Standard
1	DMTP5100	150hp	59kfg.m	Opposite direction with gearbox input shaft	SAE B SAE C
2	DMT220DL			Same direction with gearbox input shaft	
3	DMTP6500			Same direction with gearbox input shaft	
4	DMT400H			Same direction with gearbox input shaft	
5	DMT400HL			Same direction with gearbox input shaft	

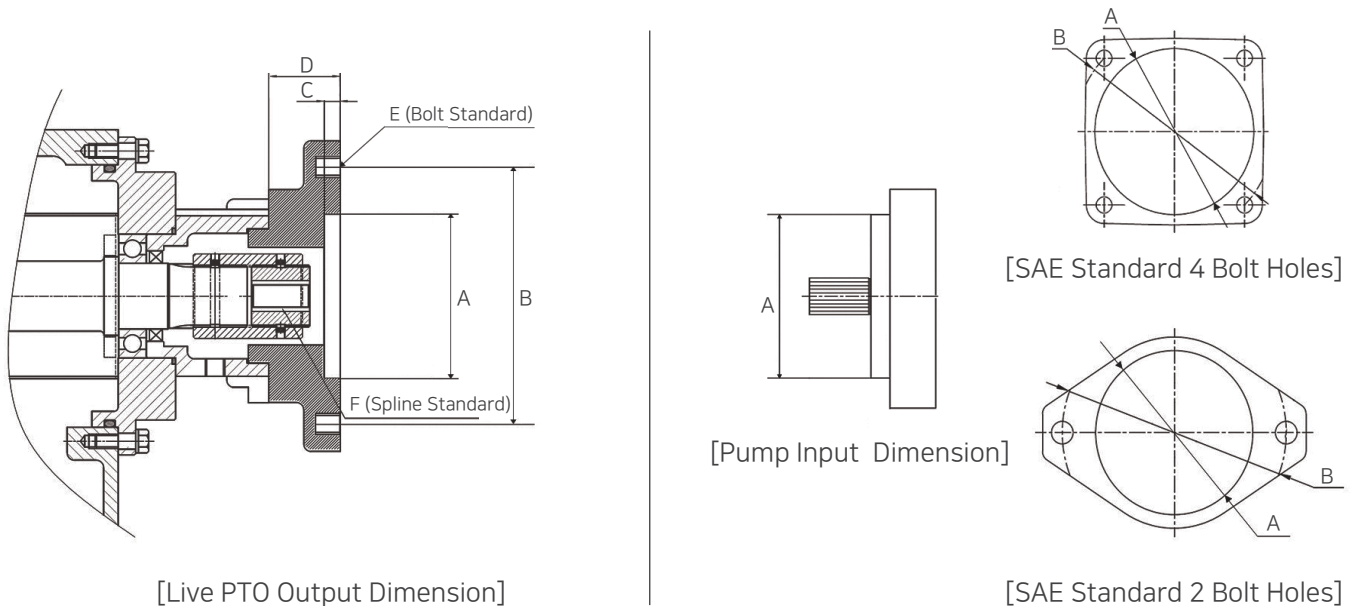
Marine Transmission with Live PTO Capacity Table

Model	Ratio	Max Input Torque		Max Input RPM	Capacity/RPM		Capacity/1800RPM		Standard Bell Housing (SAE)
		(kgf.m)	(N.m)		kW	HP	kW	HP	
DMTP5100	1.47*, 1.76*, 1.93*	168	1648	2500	0.172	0.231	310	416	1, 2, 3
	2.48, 3.08	150	1471	2500	0.153	0.206	276	370	
	3.46	130	1275	2500	0.133	0.178	240	322	
DMT220DL	3.50*, 4.04	210	2059	2500	0.216	0.289	389	520	1, 2
	4.47	198	1942	2500	0.203	0.273	365	491	
	4.72	177	1735	2500	0.182	0.243	327	437	
DMTP6500	5.11, 5.62*, 5.91	258	2530	2300	0.264	0.355	476	639	0, 1
	6.57*, 6.95	238	2334	2300	0.244	0.328	440	590	
DMT400H	1.43*, 1.72*, 2.03	453	4443	2300	0.464	0.623	836	1122	0, 1
	2.46	403	3953	2300	0.413	0.554	744	998	
	2.75	391	3835	2300	0.401	0.537	722	969	
DMT400HL	3.02*, 3.28*, 3.56, 4.07	453	4445	2300	0.465	0.623	837	1123	0, 1
	4.48	409	4014	2300	0.420	0.563	756	1013	
	4.95	374	3668	2300	0.383	0.514	691	926	

*Special Order Ratio

Option_Live PTO Pump Mounting Kit

When attaching a hydraulic pump to the Live PTO, please order the pump mounting kit by referring to the figure and [Table 1, 2] below.



[Table 1] Pump Mounting Kit Dimension DMTP5100, 6500, DMT400H, 400HL

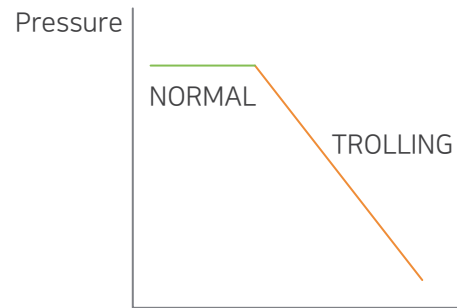
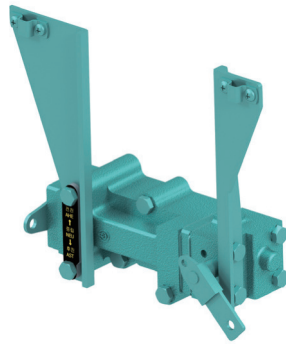
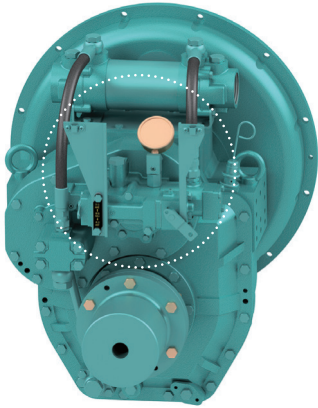
No	Part Number	Pump Plate	Pinion Coupling	A	B	C	D	E (Bolt Standard)	F (Spline Standard)	Remark
1	AS_510616	SAE A	SAE B	Ø82.55	Ø106	5mm	34mm	2-M10P1.5	DP16/32 13T	2 Bolt holes
2	AS_510617	SAE B	SAE B	Ø101.65	Ø146	10mm	53mm	2-M12P1.75	DP16/32 13T	2 Bolt holes
3	AS_510619	SAE C	SAE C	Ø127.10	Ø181	13mm	50mm	2-M16P2.0	DP12/24 14T	2 Bolt holes
4	AS_510620	SAE C	SAE C	Ø127.10	Ø162	13mm	50mm	4-M14P2.0	DP12/24 14T	4 Bolt holes

[Table 2] Pump Mounting Kit Dimension DMT220DL

No	Part Number	Pump Plate	Pinion Coupling	A	B	C	D	E (Bolt Standard)	F (Spline Standard)	Remark
1	AS_220621	SAE A	SAE B	Ø82.55	Ø106	8mm	54mm	2-M10P1.5	DP16/32 13T	2 Bolt holes
2	AS_220622	SAE B	SAE B	Ø101.65	Ø146	11mm	54mm	2-M12P1.75	DP16/32 13T	2 Bolt holes
				Ø101.65	Ø127	11mm	54mm	4-M12P1.75	DP16/32 13T	4 Bolt holes
3	AS_220623	SAE C	SAE C	Ø127.10	Ø181	15mm	54.5mm	2-M16P2.0	DP12/24 14T	2 Bolt holes
4	AS_220624	SAE C	SAE C	Ø127.10	Ø161.9	15mm	54.5mm	4-M14P2.0	DP12/24 14T	4 Bolt holes

Option_Trolling Valve

Slow Speed Operation Or Maneuvering



- The TROLLING VALVE is designed to allow very low speed operation by precisely controlling clutch slippage.
- The trolling valve is fitted directly on the selector valve. Trolling operation can be applied both ahead and astern direction.

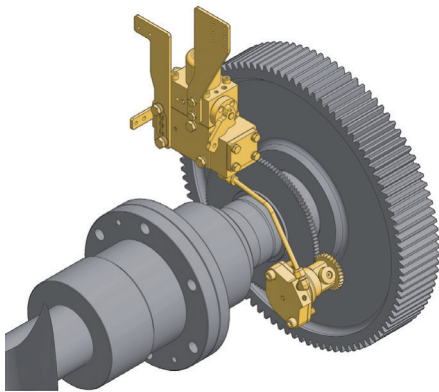
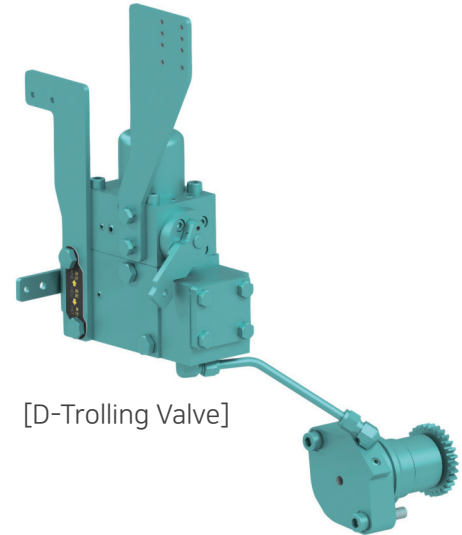
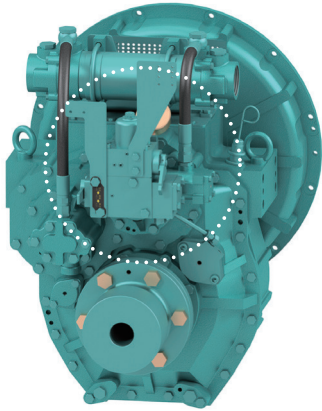
※ Trolling valve operation must be limited to a maximum of 900 engine RPM.

Option_Trolling Valve Part Number

No	Part Number	Part Name	Applicable Model
1	ST_140500T	TROLLING VALVE GROUP	DMT18A, 25AL, 50A, 70T, 90A, 100IV, 110A, 135HL, 140H
2	ST_200500T	TROLLING VALVE GROUP	DMT150H, 170HL, 180HL, 190H, 190HL, 200H, 200HL, 220DL, DMTP5100
3	ST_240500T	TROLLING VALVE GROUP	DMT240H, 260H, 260HL, 280H, 280HL, DMTP6500
4	ST_400500T	TROLLING VALVE GROUP	DMT400H, 400HL, 430H, 460HL, 550H, 561HL, 600DL, 600BL
5	ST_750500T	TROLLING VALVE GROUP	DMT300HL, 330DL, DMTP7500

Marine Transmission with D-Trolling Valve

A device that maintains the set output rotation while increasing or decreasing the clutch hydraulic pressure in accordance with the rotation on the shaft in the trolling state.



- The D trolling valve consists of D trolling group, governor group, and pipe ass'y.

A gear is attached to the output shaft group connected to the propeller shaft to detect the propeller rotation speed.

- The clutch pressure is determined by the balance between the pressure by the lever switching position of the D control valve and the governor pressure, stabilizes the propeller speed according to the load variation.

※Trolling valve operation must be limited to a maximum of 900 engine RPM.

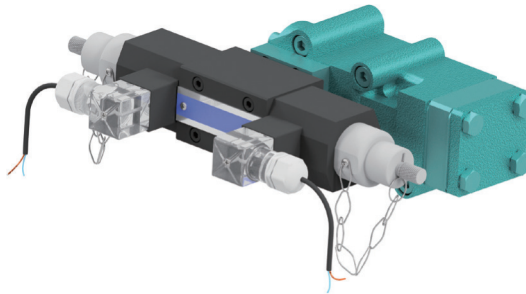
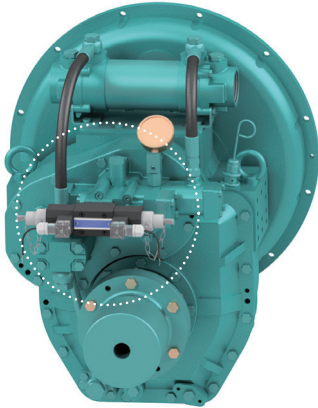
※ D-rolling valve is only available for the models below. Please purchase a new one with D-Trolling specification. Below models which can be applied to D-rolling valves have a different structure than previous models, so it cannot be applied to previous models.

Model	Ratio	Max Input Torque		Max Input RPM	Capacity/RPM		Capacity/1800RPM		Remark
		(kgf.m)	(N.m)		kW	HP	kW	HP	
DMT90A	1.61*, 2.06, 2.45 2.82, 3.12, 3.46	87	857	3000	0.089	0.120	161	216	
DMT140H	1.97, 2.57, 3.03 3.46	130	1275	2800	0.133	0.178	239	322	
DMT150H	1.83*, 2.09, 2.51 3.08, 3.43	168	1648	2500	0.172	0.231	310	416	
DMT190H	1.83*, 2.09, 2.51 3.08, 3.43	180	1765	2500	0.184	0.247	332	446	
DMT240H	1.50*, 1.97*, 2.44 2.93, 3.40	218	2138	2500	0.223	0.299	402	540	
DMT280H	2.06, 2.50, 2.92 3.26	298	2927	2500	0.306	0.410	550	739	
DMT430H	2.05, 2.43, 2.93	453	4443	2300	0.464	0.623	836	1122	
	3.23	430	4218	2300	0.440	0.591	794	1065	
	3.40	408	4002	2300	0.418	0.418	754	1011	

*Special Order Ratio

Option_Electric Control Valve

Suitable For Electrical Control Engine



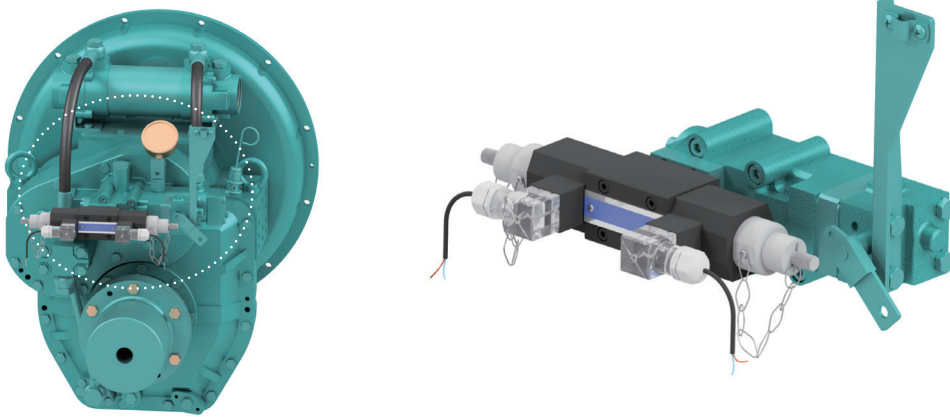
- Sustainable sailing by adopting urgency operating valve
- Compatible to all electrical engine control makers
- Safety with solenoid valve by global makers

Electric Control Valve Order Table

No	Part Number	Part Name	Volt	Applicable Model
1	ST_200560	ST_ELECTRIC VALVE GROUP(24V)	24V	DMT18A, 25AL, 50A, 70T, 90A, 100IV, 110A, 135HL, 140H, 150H, 170HL, 180HL, 190H, 190HL, 200H, 200HL, 220DL, DMTP5100
2	ST_280560	ST_ELECTRIC VALVE GROUP(24V)	24V	DMT240H, 260H, 260HL, 280H, 280HL, DMTP6500
3	ST_450560	ST_ELECTRIC VALVE GROUP(24V)	24V	DMT400H, 400HL, 430H, 460HL, 550H, 561HL, 600DL, 600BL
4	ST_750560	ST_ELECTRIC VALVE GROUP(24V)	24V	DMT300HL, 330DL, DMTP7500
5	ST_200570	ST_ELECTRIC VALVE GROUP(12V)	12V	DMT18A, 25AL, 50A, 70T, 90A, 100IV, 110A, 135HL, 140H, 150H, 170HL, 180HL, 190H, 190HL, 200H, 200HL, 220DL, DMTP5100
6	ST_280570	ST_ELECTRIC VALVE GROUP(12V)	12V	DMT240H, 260H, 260HL, 280H, 280HL, DMTP6500
7	ST_450570	ST_ELECTRIC VALVE GROUP(12V)	12V	DMT400H, 400HL, 430H, 460HL, 550H, 561HL, 600DL, 600BL
8	ST_750570	ST_ELECTRIC VALVE GROUP(12V)	12V	DMT300HL, 330DL, DMTP7500

Option_Electric Control Valve + Trolling Valve

Electric Control Valve and Trolling Valve can be used together

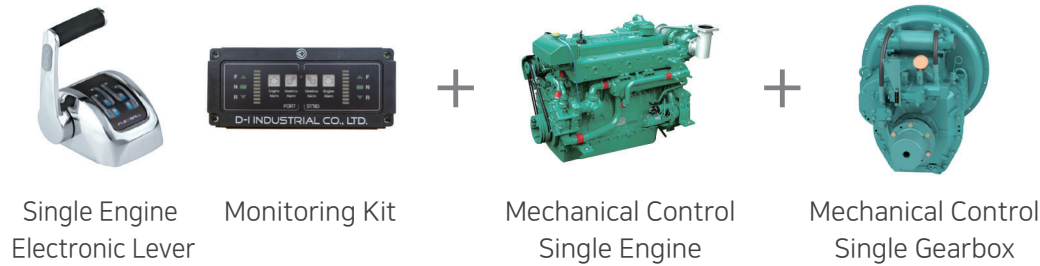


Electric Control Valve + Trolling Valve Order Table

No	Part Number	Part Name	Volt	Applicable Model
1	ST_140580	ST_ELECTRIC VALVE GROUP, TROLLING(24V)	24V	DMT18A, 25AL, 50A, 70T, 90A, 100IV, 110A, 135HL, 140H
2	ST_200580	ST_ELECTRIC VALVE GROUP, TROLLING(24V)	24V	DMT150H, 170HL, 180HL, 190H, 190HL, 200H, 200HL, 220DL, DMTP5100
3	ST_280580	ST_ELECTRIC VALVE GROUP, TROLLING(24V)	24V	DMT240H, 260H, 260HL, 280H, 280HL, DMTP6500
4	ST_450580	ST_ELECTRIC VALVE GROUP, TROLLING(24V)	24V	DMT400H, 400HL, 430H, 460HL, 550H, 561HL, 600DL, 600BL
5	ST_750580	ST_ELECTRIC VALVE GROUP, TROLLING(24V)	24V	DMT300HL, 330DL, DMTP7500
6	ST_140590	ST_ELECTRIC VALVE GROUP, TROLLING(12V)	12V	DMT18A, 25AL, 50A, 70T, 90A, 100IV, 110A, 135HL, 140H
7	ST_200590	ST_ELECTRIC VALVE GROUP, TROLLING(12V)	12V	DMT150H, 170HL, 180HL, 190H, 190HL, 200H, 200HL, 220DL, DMTP5100
8	ST_280590	ST_ELECTRIC VALVE GROUP, TROLLING(12V)	12V	DMT240H, 260H, 260HL, 280H, 280HL, DMTP6500
9	ST_450590	ST_ELECTRIC VALVE GROUP, TROLLING(12V)	12V	DMT400H, 400HL, 430H, 460HL, 550H, 561HL, 600DL, 600BL
10	ST_750590	ST_ELECTRIC VALVE GROUP, TROLLING(12V)	12V	DMT300HL, 330DL, DMTP7500

Mechanical Single Engine Electronic Lever

One lever controls both engine and Gearbox



Part Number	Model	Part Name
45010000SM	DEL100SM	SINGLE ENGINE ELECTRONIC LEVER GROUP

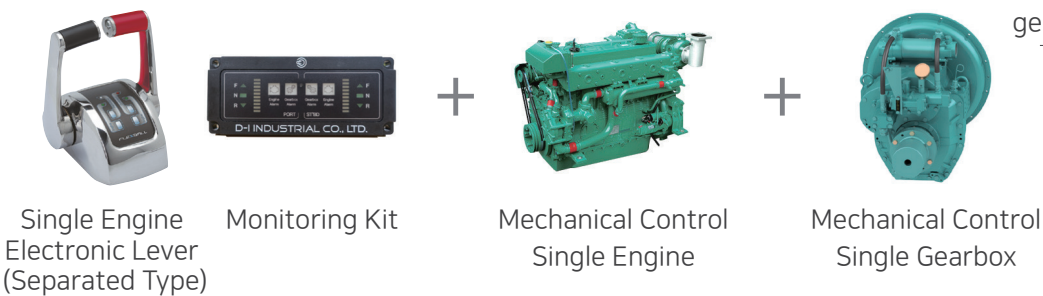
■ Components

- Single Engine Electronic Lever
- Supply plug
- Monitoring Kit
- Mechanical Actuator
- Data Cable(1m * 1, 20m * 1, Y-type * 1)
- Handle Scale



Mechanical Single Engine Electronic Lever(Separated type)

Left lever controls the gearbox, right lever controls the engine throttle



Part Number	Model	Part Name
45010000TM	DEL100TM	SINGLE ENGINE ELECTRONIC LEVER GROUP(4500TLC)

■ Components

- Single Engine Electronic Lever
- Supply plug
- Monitoring Kit
- Mechanical Actuator
- Data Cable(1m * 1, 20m * 2, Y-type * 1)
- Handle Scale



Mechanical Twin Engine Electronic Lever

Left lever controls the gearbox, right lever controls the engine throttle

Twin Engines Electronic Lever Monitoring Kit Mechanical Control Twin Engines Mechanical Control Twin Gearboxes

port engine gearbox control starboard engine gearbox control

Part Number	Model	Part Name
45020000TM	DEL200TM	TWIN ENGINE ELECTRONIC LEVER GROUP

■ Components

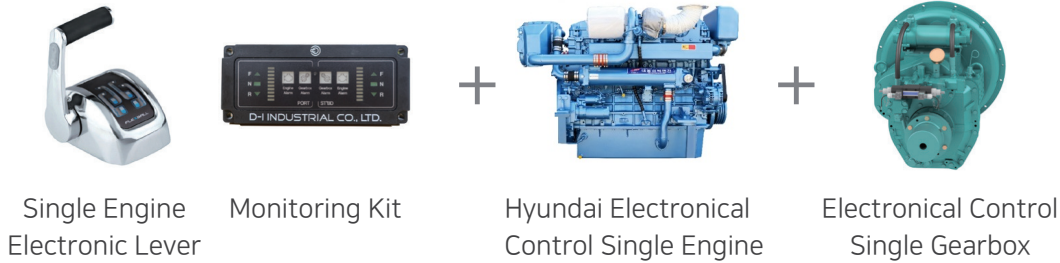
- Twin Engine Electronic Lever
- Supply plug
- Monitoring Kit
- Mechanical Actuator * 2
- Data Cable(1m * 1, 80m * 1, Y-type * 2)
- Handle Scale

Mechanical Single Electronic Lever Dimension

SINGLE ELECTRIC LEVER		
MAIN POWER(V)	9~28V(dc)	
AMPERE(A)	5A	
TEMPERATURE	WORKING	-10°C~85°C
	KEEP	-40°C~90°C
STROKE SETTING	ENGINE	5~80mm
	MARIN GEAR	5~40mm
LOAD	NOMINAL LOAD(1.5A)	15Kg
	MAXIMUM LOAD(5A)	45Kg(1SEC. BELOW)

Electronical Single Engine Electronic Lever(Hyundai)

One lever controls both engine and Gearbox



engine and gearbox control



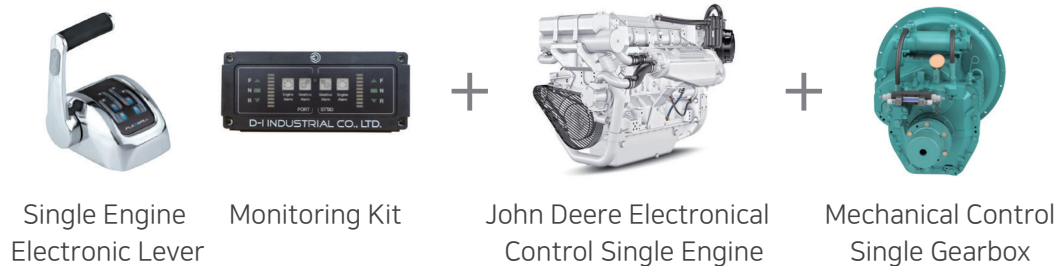
Part Number	Model	Part Name
45011000SE	DEL101SE	SINGLE ENGINE ELECTRONIC LEVER GROUP

■ Components

- Single Engine Electronic Lever
- Supply plug
- Monitoring Kit
- Engine Throttle Voltage Cable(3m)
- Electronical Actuator
- Data Cable(1m * 1, 20m * 1, Y-type * 1)
- Gearbox Solenoid Driven Cable(7m)

Electronical Single Engine Electronic Lever(John Deere)

One lever controls both engine and Gearbox



engine and gearbox control



Part Number	Model	Part Name
45012000SE	DEL102SE	SINGLE ENGINE ELECTRONIC LEVER GROUP

■ Components

- Single Engine Electronic Lever
- Supply plug
- Monitoring Kit
- Engine Throttle Voltage Cable(3m)
- Electronical Actuator
- Data Cable(1m * 1, 20m * 1, Y-type * 1)
- Gearbox Solenoid Driven Cable(7m)

Electronical Single Engine Electronic Lever(Scania)

One lever controls both engine and Gearbox



Single Engines Electronic Lever



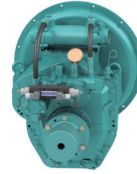
Monitoring Kit

+



Scania Electronical Control Single Engine

+



Electronical Control Single Gearbox

engine and gearbox control

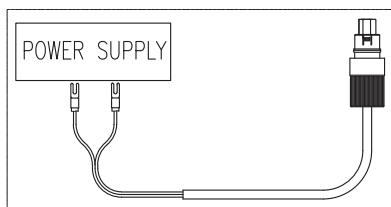
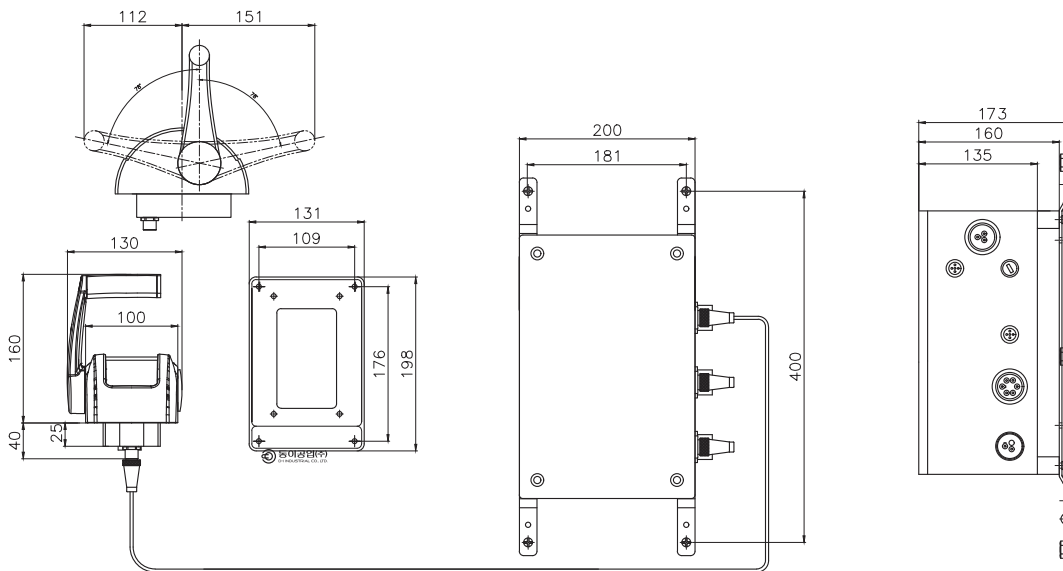


Part Number	Model	Part Name
45013000SE	DEL103SE	SINGLE ENGINE ELECTRONIC LEVER GROUP

Components

- Single Engine Electronic Lever
- Supply plug
- Monitoring Kit
- Engine Throttle Voltage Cable(3m)
- Electronical Actuator
- Data Cable(1m * 1, 20m * 1, Y-type * 1)
- Gearbox Solenoid Driven Cable(7m)

Electronical Single Electronic Lever Dimension



SINGLE ELECTRIC LEVER		
MAIN POWER(V)	9~28V(dc)	
AMPERE(A)	5A	
TEMPERATURE	WORKING	-10°C~85°C
	KEEP	-40°C~90°C
ACTUATOR	VOLTAGE	
ENGINE	HYUNDAI / JOHN DEERE / SCANIA	