



Fulfilling. Success.

MARINE INDUSTRY FLAT RATE MANUAL

VERSION
2016

Contents

Acknowledgments.....	7
Introduction.....	9
Accessories.....	11
Aerators	11
Air Conditioning	11
Anchors	12
Arches	14
Auto Float Switches	14
Ballast Systems	14
Bilge	15
Bow Pulpit	17
Bow Thrusters	17
Cabin Fans	17
Cabin Interior	17
Carpet	18
Chart Lighters	18
Cleats	18
Console	19
Covers & Canvas	20
Cruise Control	24
Dock Side	24
Doors	25
Downriggers	25
Drain Plugs	25
Drink Holders	26
Eyes	26
Fenders	26
Fire Extinguishers	27
Flag Poles	27
Floor	27
Fume Detectors	28
Gil Drive	28
Glove Boxes	28
Hatch	29
Heads (Toilets)	29
Heaters	31
Hooks/Locks/Latches	32
Horns	32
Hot Foot	33
Intercoms	33
Interface Systems	34
Jack Plates	34
Keel Protectors	34
Ladders	35
Lightning Protection	36
Lights	36
Live Bait Wells	39
Motor Brackets	40
Motor Install	40
Outriggers	41
Rails	41
Refrigerators	42
Rod Holders/Racks	43
Safety Kits	43
Sail	44
Scuff Plates	44
Seats	44
Ski Mirrors/Tow Bars	47
Stabilizers	49
Storage Boxes	49
Stoves	49

Swim Platforms	50	Wash Down	55
Sync Link	50	Water Heaters	56
Tables	51	Water Systems	56
Telephones & TVs	51	Wave Wackers	57
Tracking Fins	52	Windows	57
Trolling Motors	53	Windshields	57

Electrical61

Alternators	61	Regulators	72
Batteries	62	Rewire	73
Cigarette/Accessories	64	Senders	74
Electrical Systems	64	Starters	74
Ignition Systems	67	Switches	76
Receptacles	72		

Fiberglass & Detail.....81

Bottom Clean/Wash	81	Gunnels	87
Detailing	82	Registration Numbers	88
Fiberglass Repair	86	Sand & Paint	88
Gelcoat Repair	86	Teak	90
Graphics	86	Zincs	90

Fuel Systems93

Carburetors	93	Fuel Systems	104
Electronic Fuel Injection	97	Fuel Tanks	106
Fuel Filters	100	Intake Manifold	107
Fuel Lines	101	Oil Injection	107
Fuel Pumps	102	Primers	109

Instruments.....113

Antennas	113	Plotters	123
Audio Warning	114	Radar	123
Autopilot	114	Radios	124
Compasses	115	Rudder Indicators	128
Depth/Fish Finders	115	Speedometers	128
Gauges	119	Synchronizers	129
GPS/Lorans	120	Tachometers	129
Graphs	122	Transducers	129
Hour Meters	122	Volt Meters	130
Knot Meters	123		

Jet Boats133

<u>Jet Boats General</u>	133	<u>OMC Jet Boats</u>	140
Engines	133	Engines	140
Propulsion	133	Fuel/Oil	140
Seasonal	133	Propulsion	140
Service	133	Steering	140
Trade In Evaluation	134	<u>Sea-Doo Jet Boats</u>	141
<u>Mercury Jet Boats</u>	135	Body/Frame	141
Electrical	135	Electrical	142
Engines	135	Engines	143
Fuel/Oil	136	Fuel/Oil	144
Ignition	137	Ignition	145
Propulsion	137	Propulsion	146
Seasonal	138	Seasonal	146
Service	138	Service	147
Starters	138	Setup	148
Steering	139	Starters	150
		Steering	150
		Trade In Evaluation	150

Mechanical153

Align Engines	153	Outdrive – Dana	188
Bellows	153	Outdrive – General	188
Check Systems	155	Outdrive – Merc	192
Clutch Dogs	158	Outdrive – OMC	197
Cooling Systems	158	Outdrive – Volvo	201
Corrosion Control	160	Pontoons/Deck Boats	202
Couplers	161	Power Steering	203
Cutlass Bearings	161	Powerhead	204
Cylinder Heads	161	Powerhead Gasket	205
Decarbon	163	Propellers	206
Drive Belts	164	Remote Controls	208
Drive Shafts	164	Reverse Lockdown	209
Dynos	165	Rewind	209
Engine Rebuild	165	Rudders	210
Engine Repower	166	Sea Cocks	210
Engine Valves/Lifters	167	Shaft Logs/Struts	210
Engines	168	Shift	212
Estimates	173	Steering Systems	213
Exhaust	174	Steering Systems/HYD	216
Frost Plugs	176	Swivel Brackets	217
Generators	176	Thermostats	217
Gimbal Assemblies	179	Throttles	219
Governors	180	Timing Belts	219
Harmonic Balancers	180	Trade In Evaluations	220
Heat Exchangers	180	Transmissions	221
Helicoils	180	Transoms	222
Hour Checks	181	Trim & Tilt	224
Inflatables	185	Trim & Tilt Cylinders	227
Oil & Filter	186	Trim & Tilt Gauges	227

Trim & Tilt Hoses	228	Water Pumps – Ford	236
Trim & Tilt Motors	228	Water Pumps – General	236
Trim & Tilt Pumps	229	Water Pumps – GM	238
Trim & Tilt Senders	229	Water Pumps – Honda	239
Trim & Tilt Switches	230	Water Pumps – Merc	240
Trim & Tilt Tabs	231	Water Pumps – OMC	243
Trim & Tilt Tubes	232	Water Pumps – Suzuki	245
Tune Ups	232	Water Pumps – Volvo	246
Universal Joints	236	Water Pumps – Yamaha	247

Personal Water Craft251

<u>PWC General</u>	251	<u>Polaris PWC</u>	260
Accessories	251	Electrical	260
Body/Frame	251	Engines	260
Detail	251	Fuel/Oil	261
Electrical	251	Ignition	262
Engines	252	Propulsion	262
Fuel/Oil	253	Starters	262
Ignition	253	<u>Sea-Doo PWC</u>	263
Propulsion	253	Accessories	263
Seasonal	254	Body/Frame	264
Service	255	Detail	280
Setup	255	Electrical	280
Starters	255	Engines	288
Steering	255	Fuel/Oil	305
Trade In Evaluation	256	Ignition	323
<u>Honda PWC</u>	257	Propulsion	327
Propulsion	257	Seasonal	337
Seasonal	257	Service	338
Service	257	Setup	340
Starters	257	Starters	342
<u>Kawasaki PWC</u>	258	Steering	344
Body/Frame	258	Suspension	350
Electrical	258	Trade In Evaluation	351
Engines	258	<u>Yamaha PWC</u>	352
Fuel/Oil	258	Body/Frame	352
Ignition	259	Electrical	352
Propulsion	259	Engines	352
Starters	259	Fuel/Oil	352
Steering	259	Propulsion	353
		Seasonal	353
		Service	353
		Starters	353

Rigging357

Alumacraft	358	Pontoon Boats	425
Astro	359	Powerquest	426
Baja	361	Princecraft	427
Bass Boats	362	Princecraft Deck Boats	431
Bayliner	363	Princecraft Pontoons	433
Bennington	365	Procraft	434
Bentley Pontoons	366	Pursuit	435
Boston Whaler	367	Ranger	438
Caravelle	368	Regal	439
Carver	369	Rinker – Sport Boats	440
Champion	372	Rinker – Sport Cruisers	442
Chaparral	373	Robalo	443
Chris Craft	376	Roughneck	445
Cobalt	378	Runabouts	446
Correct Craft	379	Sea Ark	447
Crest Pontoons	380	Sea-Doo Jet Boats	449
Crestliner	381	Sea-Doo PWC	450
Crownline	382	Sea Nymph	451
Custom Weld	384	Sea Ray – Laguna	452
Deck Boats	385	Sea Ray – Sport Boats	453
Docks & Lifts	386	Sea Ray – Sport Cruisers	460
Doral	387	Sea Ray – Sport Yachts	465
Fisher Aluminum	388	Sea Ray – Yachts	472
Formula	390	Sea Rayder	473
Fountain	391	Silverton	474
Four Winns	392	Skeeter	477
Godfrey Pontoons	393	Ski Ray	478
Harris	396	Smoker Craft	479
Hurricane Pontoons	397	Sprint	480
Key West Boats	398	Starcraft	481
Landau	399	Starcraft Aluminum	482
Larson	400	Stingray	483
Lowe	403	Sunbird	484
Lund	405	Supra	486
Malibu	407	Sylvan Aluminum	487
Maxum	408	Tahoe Pontoons	489
Meridian Mirrocraft	412	Tige	490
Monark	413	Toyota	491
Moomba	414	Tracker Deep V	492
Motor Only Personal	418	Tracker Pontoons	493
Water Craft	419	Weeres Pontoons	494
Playbuoy Pontoons	421	Zodiac	495
Polar Kraft	422	Trailers	497
	423	Used Boats	499

Seasonal503

Annual Service	503	Shrink Wrap	506
Haul Outs	503	Summerize	508
Hoist/Launch	505	Winterize	511

Trailers.....523

Assembly	523	Safety Chains	529
Axles	523	Side Guides	529
Bearings	523	Springs	529
Brakes	524	Swap Out Trailers	529
Bunks	526	Tires	530
Check Trailer Load	526	Tongues	530
Fenders	526	Trailer Adjust	530
Friction Blocks	527	Trailer Couplers	531
Hitches	527	Trailer Electrical	531
Inspections	527	Trailer Hydraulics	532
Jacks	528	Trailer Service Check	532
License Plates	528	Transom Saver	533
Motor Supports	528	Walk Boards	533
Paint	528	Wheel Cylinders	533
Rollers	528	Winches	533

Flat Rate Updates539

SUGG FLAT RATE TIME	COMPUTER CODE	OPERATION	DEALER FLAT RATE TIME	LABOR RATE	MATERIALS	TOTAL
		MOTOR BRACKETS				
1.5	503000	AUXILIARY MOTOR BRACKET INSTALL OB				
6.4	743340	AUXILIARY MOUNT INSTALL OB EXIST TRANSOM PLATFORM				
6.0	523200	MOTOR BRACKET INSTALL (DUAL TRANSOM)				
<i>NEW!</i> 14.8	523200	MOTOR BRACKET INSTALL (DUAL TRANSOM) KATAMARAN				
4.7	523350	MOTOR BRACKET INSTALL (SINGLE TRANSOM)				
1.0	523300	MOTOR BRACKET INSTALL E-Z REMOVABLE PLATFORM				
2.0	632640	MOTOR BRACKET INSTALL KICKER BASS TILLER				
3.0	758080	MOTOR BRACKET INSTALL KICKER PONTOON				
0.8	632650	MOTOR BRACKET INSTALL TILLER				
3.3	740200	MOTOR BRACKET/E-Z STEER KIT INSTALL OB 4-STROKE				
0.5	707360	MOTOR TOTOR INSTALL				
		MOTOR INSTALL				
0.8	523440	ELECTRIC START SMALL MOTOR				
1.5	658495	ELECTRIC START TILLER KICKER				
1.0	523400	ELECTRIC START TILLER 25HP & UP				
4.8	523410	ELECTRIC START W/CONTROLS & STEERING HKP 25HP & UP				
0.6	636210	LIFT MOTOR INSTALL COMMANDER DIRECT DRIVE				
0.5	636220	LIFT MOTOR INSTALL SHORELINE WHEEL TO WHEEL				
0.5	523450	MANUAL START SMALL MOTOR				
0.7	523420	MANUAL START TILLER 25HP & UP				
4.3	523430	MANUAL START W/CONTROLS & STEERING HKP 25HP & UP				
0.5	751570	MOTOR DEMONSTRATE HOW TO OPERATE OB 8HP				
6.0	759140	MOTOR INSTALL OB W/RIG				
2.0	758090	MOTOR INSTALL ON KICKER BRACKET PONTOON				
<i>NEW!</i> 8.3	767910	MOTOR INSTALL W/CONTROLS THRU HULL KICKER TRACKER				
		MOTOR INSTALL continued on next page...				



Fulfilling. Success.

SUGG FLAT RATE TIME	COMPUTER CODE	OPERATION	DEALER FLAT RATE TIME	LABOR RATE	MATERIALS	TOTAL
		<u>SYNCHRONIZERS</u>				
2.2	566300	SYNCHRONIZER INSTALL 26-30 FT				
2.6	566400	SYNCHRONIZER INSTALL 31-38 FT				
3.1	566500	SYNCHRONIZER INSTALL 39 FT & UP				
10.7	535000	SYNCHRONIZER INSTALL GLENNDENNING				
8.0	651220	SYNCHRONIZER INSTALL STURDY AFT-CABIN W/WTR TEST				
6.5	651200	SYNCHRONIZER INSTALL STURDY INCL WATER TEST				
0.7	534800	SYNCHRONIZER R&R				
2.6	651230	SYNCHRONIZER R&R STURDY INCL WATER TEST				
		<u>TACHOMETERS</u>				
0.8	568000	TACHOMETER DIAGNOSE/TEST				
0.7	741050	TACHOMETER INSTALL EXISTING CUTOUT				
1.0	567920	TACHOMETER INSTALL W/ENGINE				
1.5	568100	TACHOMETER INSTALL W/HARNESS				
0.7	567900	TACHOMETER R&R				
1.5	566320	TACHOMETER & SPEEDOMETER INSTALL W/ENGINE				
1.2	567910	TACHOMETER CONTROL UNIT R&R SUZUKI				
0.5	757740	TACHOMETER DRAG ADDITIONAL ACCESS				
		<u>TRANSDUCERS</u>				
0.5	722400	TRANSDUCER DIAGNOSE				
2.0	651210	TRANSDUCER FABRICATE BLOCK				
1.3	569200	TRANSDUCER INSTALL				
<i>NEW!</i> 1.4	767880	TRANSDUCER INSTALL REAR TRACKER				
0.8	562410	TRANSDUCER INSTALL ST-T LOWRANCE SPEED/TEMP				
		TRANSDUCERS continued on next page...				

INSTRUMENTS



Fulfilling. Success.

SUGG FLAT RATE TIME	COMPUTER CODE	OPERATION	DEALER FLAT RATE TIME	LABOR RATE	MATERIALS	TOTAL
		STEERING SYSTEMS/HYD cont.				
1.0	761830	HYD STEERING CYLINDER INSTALL				
<i>NEW!</i> 1.5	767040	HYD STEERING CYLINDER INSTALL INCL BLEED SYSTEM				
1.0	657100	HYD STEERING CYLINDER RESEAL				
2.0	725630	HYD STEERING CYLINDER RESEAL INCL BLEED SYSTEM SEASTAR				
2.5	664730	HYD STEERING CYLINDER W/MOUNTING ADAPTER R&R IO				
0.5	725640	HYD STEERING HELM BLEED/FILL WITH FLUID SEASTAR				
2.5	725650	HYD STEERING HELM RESEAL/REINSTALL/BLEED SEASTAR				
<i>NEW!</i> 3.5	766920	HYD STEERING HOSES R&R INCL BLEED SYSTEM				
2.0	758260	HYD STEERING LINES R&R FROM HELM TO MOTOR				
6.5	656840	HYD STEERING RAM RESEAL				
		SWIVEL BRACKETS				
2.3	657160	SWIVEL BRACKET R&R 2-8HP				
3.0	657170	SWIVEL BRACKET R&R 9.9-25HP				
6.0	708790	SWIVEL BRACKET R&R MERC 70HP				
4.2	749450	SWIVEL BRACKET R&R YAMAHA 4-STROKE 25HP				
4.0	704520	SWIVEL HEAD R&R W/SWIVEL BRACKET FRESH WATER				
		THERMOSTATS				
0.5	704530	THERMOSTAT DIAGNOSE				
0.8	704530	THERMOSTAT DIAGNOSE MERC STERN DR				
3.6	725660	THERMOSTAT R&R 4/6/8 CYL INCL DIAGNOSE/TEST RUN				
1.5	762980	THERMOSTAT R&R CATALYTIC CONVERTER (BOTH SIDES) VOLVO				
2.0	763490	THERMOSTAT R&R EVINRUDE G2 (BOTH)				
0.6	749460	THERMOSTAT R&R IO				
1.5	725670	THERMOSTAT R&R IO 3/4 CYL W/POPIT VALVE				
1.2	725680	THERMOSTAT R&R IO V8				
		THERMOSTATS continued on next page...				

MECHANICAL

SUGG FLAT RATE TIME	COMPUTER CODE	OPERATION	DEALER FLAT RATE TIME	LABOR RATE	MATERIALS	TOTAL
		TIRES				
<i>NEW!</i> 0.8	766250	SPARE TIRE INSTALL W/BRACKET MOUNT				
0.5	750790	SPARE TIRE BRACKET/CARRIER INSTALL				
0.7	622910	TIRE R&R				
0.4	622900	TIRE & WHEEL/RIM CHANGE (EACH)				
0.5	751600	TIRE COVER INSTALL (DOUBLE AXLE)				
0.3	751590	TIRE COVER INSTALL (SINGLE AXLE)				
0.3	622920	TIRES ADD AIR				
		TONGUES				
3.5	706020	REMOVABLE TONGUE INSTALL W/BRAKES				
1.8	618700	REMOVABLE TONGUE INSTALL W/O BRAKES				
3.8	729350	SWING TONGUE INSTALL				
2.8	616415	SWING TONGUE INSTALL (BOLT ON) W/O BRAKES				
2.9	652940	SWING TONGUE INSTALL COMPLETE W/BRAKES				
<i>NEW!</i> 1.0	766710	TONGUE WEIGHT ADJUST INCL MOVE AXLE NO BRAKES (SINGLE)				
<i>NEW!</i> 0.4	766500	TONGUE WEIGHT CHECK FOR CUSTOMER				
2.5	757790	TRAILER TONGUE R&R W/NEW				
		TRAILER ADJUST				
2.0	624000	TRAILER ADJUST (DUAL AXLE)				
1.8	706100	TRAILER ADJUST (DUAL AXLE) PONTOON				
1.3	624100	TRAILER ADJUST (SINGLE AXLE)				
1.0	706030	TRAILER ADJUST (SINGLE AXLE) PONTOON				
2.0	624300	TRAILER ADJUST (SINGLE AXLE) W/ROLLER BUNK				
3.4	652960	TRAILER ADJUST (TRIPLE AXLE)				
1.19	663800	TRAILER ADJUST INCL 8 INCH BEAM MAX (PER FT)				
0.2	750800	TRAILERING SPACER INSTALL				