



Warranty Flat Rate Guide

Evinrude E-TEC G2

115 H.O., 140 HP, 150 HP



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INTRODUCTION	1
.....	1

WARRANTY REPAIR FLAT RATE TIMES.....	3
ENGINE COVERS AND FRAMES (SAP SYSTEM CODE 28).....	3
ELECTRICAL/ IGNITION (SAP SYSTEM CODE 24)	4
FUEL SYSTEM/ OIL SYSTEM (SAP SYSTEM CODE 25)	5
POWERHEAD (SAP SYSTEM CODE 21).....	6
MIDSECTION (SAP SYSTEM CODE 23).....	7
POWER TRIM (SAP SYSTEM CODE 27)	8
DYNAMIC POWER STEERING (SAP SYSTEM CODE 29).....	9
GEARCASE (SAP SYSTEM CODE 22)	10

ACCESSORIES	11
CONTROLS	11
ICON SYSTEM	12

ADDITIONAL INFORMATION	13
VOUCHERS — FLUID AND MISCELLANEOUS	13
ADDITIONAL ALLOWANCE	14
CUSTOMER COMMENT CODES	15
REQUEST FOR REVIEW OF FLAT RATE TIME STANDARD	17

Introduction

This manual provides Warranty Flat Rate Allowances for *Evinrude® E-TEC®* outboards. This manual can also be useful in determining shop hours required to perform non-warranty service work or maintenance.

1. HOW DOES IT WORK

Follow the procedures detailed in the *Evinrude® E-TEC®* Service Manual. The flat rate time is the maximum time allowed for a repair involving any given part. **FLAT RATE TIME IS NOT CUMULATIVE.** You must use the flat rate time given for the longest lasting operation. All flat rate times are based on the actual time required for a factory trained technician to complete the various operations using the appropriate hand tools and *Evinrude® E-TEC®* special tools.

All fractions of hours are in tenths.

2. COMPILATION

Flat rate times include an allowance for diagnosis as well as time for the removal and replacement of all components necessary to complete the repair. Where appropriate, the flat rate times also include time for performance tests with recommended test equipment. Flat rate times are not cumulative. Only use the flat rate time for the longest operation. Be aware of this when comparing flat rate hours claimed and those actually paid. **If flat rate times overlap, this extra time will be removed from the claim without notification.** Flat rate times do not include the additional work required for removal of corroded screws. Dealers in salt water areas may add this time, when appropriate. See flat rate codes "Y" for additional allowances. Only one salt water allowance may be submitted for each major repair. Any additional time required due to corrosion will be the responsibility of the customer. See applicable *Evinrude® E-TEC®* Limited Warranty.

The Flat Rate Time Schedule is compiled as follows:

The actual time required to perform the repair plus (+) 30% correction factor up to 3.0 hours or (+) 15% over 3.0 hours time to take into account, among others:

- Vehicle handling
- Obtaining the parts
- Diagnosis
- Cleaning
- Special compensation (rusted bolts)

Introduction

NOTE CODES

Details for specific repair procedures:

1	Authorization Required Prior to Repair or Ordering Parts For Repair – Contact After Sales Support
2	Includes Return Packaging
3	Contact Dealer Services For Assistance
4	When Servicing or Replacing Two or More Components, Call For Prior Authorization
6	Includes Timing Verification
7	No Additional Time Is Allowed For Counter-Rotation (CORO) Gearcases
10	Use Failing Part Number 8888885 For Software Updates Unless the EMM Software Update is Being Performed as a Result of a Specific Warranty Bulletin. Refer to the Applicable Warranty Bulletin For Unique Failing Part Numbers Related to Specific Warranty Campaigns.
11	Replacement Item Only — Contact After Sales Support — Tech Service
12	Includes R&R of Engine Covers and Frames
13	Includes R&R of Gearcase Assembly
14	Install New Shift Lever and Cradle
15	Includes Allowance Time For Assistance From Second Technician
16	Includes Steering System Bleed
17	Add 0.4 For E-Link Module Replacement

3. JOB REQUIREMENTS

All the flat rate times mentioned in the following pages include the required operations such as: engine timing, connecting rod(s) alignment, cylinder head(s) torque or use of parallel bar, use of ignition tester, piston clearance/ring end gap measurement, crankshaft to crankcase measurement, cylinder honing, engine leak test.

4. REQUEST FOR REVIEW OF FLAT RATE TIME STANDARD

This form is for your convenience to request a review of an established Flat Rate Time Standard. The information you provide will assist in our efforts to pay for warranty work fairly.

Warranty Repair Flat Rate Times

Engine Covers and Frames (SAP System Code 28)

2

Description	Note	Code	Time
All Engine Frames	1	C403	0.5
Port Side Cover	1	C404	0.5
Starboard Side Cover	1	C405	0.2
Decal Application		C406	0.2
Rigging Center	16	C407	0.4

Warranty Repair Flat Rate TimesElectrical/ Ignition (SAP System Code 24)

Electrical/ Ignition (SAP System Code 24)

Description	Note	Code	Time
Flywheel	6	E401	1.2
Stator	6	E403	1.5
Ignition Coil Assembly (One)		E411	0.4
Ignition Coil Assembly (Each Additional)		E412	0.1
Engine Wiring Harness	1	E417	2.3
Electric Starter Motor – Replace		E420	0.5
Engine Temperature Sensor		E426	0.4
EMM Assembly	1, 3, 6	E427	1.0
EMM Reprogram	10	EP4	0.3
Crankshaft Position Sensor	6	E428	1.2
Air Temperature Sensor		E437	.9
Capacitor		E438	1.0
Knock Sensor		E442	0.4
Trim and Tilt Relay Assembly		E449	0.7
Trim and Tilt Switch		E450	0.7

Fuel System/ Oil System (SAP System Code 25)

Description	Note	Code	Time
Intake Manifold/Reed Plate - Repair/Replace		F407	1.8
Pick Up Assembly - Oil Tank		F419	1.3
Oil Pump Assembly - Top		F446	0.6
Fuel Filter Assembly		F422	0.4
Vapor Separator and Electric Fuel Pump Assembly		F426	0.7
Fuel Injector Assembly - Replace or Service (1 assy.) (Includes Tubes & O-rings)	4,5	F434	0.6
High Pressure Fuel Lines and Connectors	12	F435	0.5
Throttle Body / Throttle Valve Assembly	12	F437	1.0
Vapor Vent Solenoid	12	F438	0.5
Fuel Injector Assembly - (Each Additional, Includes Tubes & O-rings)	4,5	F439	0.2
Oil Tank Assembly Replace	12	F440	1.7
Oil Level Sending Unit		F447	1.3
Oil Tank Vent Valve		F444	0.3

Warranty Repair Flat Rate Times

Powerhead (SAP System Code 21)

Powerhead (SAP System Code 21)

Description	Note	Code	Time
Powerhead - Replace (RPH)	1,2,6,12	P401	8.5
Cylinder Head and O-ring	12	P402	2.0
Thermostat	12	P406	0.4
Cylinder and Crankcase - Reseal	1,6, 12	P409	8.0
Cylinder and Crankcase - Rebuild	1,6, 12	P410	12.0
Crankshaft - Replace	1,6	P411	12.0
Upper Crankshaft Seal	6	P412	8.0
Lower Crankshaft Seal	12	P413	8.0
Upper Main Bearing	6	P414	12.0
Lower Main Bearing	12	P415	12.0
Powerhead Base Gasket	12	P417	2.0
Cooling Water Hose (Block Fitting to EMM)	N/A	P432	0.7
Cooling Water Hose (Vapor Separator to Block)	N/A	P438	0.7
All Other Powerhead Hoses	12	P433	0.7
Air Silencer	12	P434	1.4
Upper Balance Gear	12	P435	10.0
Lower Balance Gear	12	P436	10.0
Upper Balance Gear Bearing	12	P439	10.0
Lower Balance Gear Bearing	12	P440	10.0
Upper Balance Gear Dust Cover	12	P441	10.0
Lower Balance Gear Dust Cover	12	P442	10.0
Center Main Bearing	12	P443	10.0

Midsection (SAP System Code 23)

Description	Note	Code	Time
Steering Arm Assembly		H102	0.5
Swivel Bracket		H105	2.0
Stern Bracket (One or Both)		H107	1.5
Lower Motor Mount Bracket		H110	2.0
Tilt Tube		H114	1.0
Trail Lock Arm – Motor Support		H115	0.3
Lever and Shaft – Trail Lock		H116	0.3
Lever – Tilt Lock		H119	0.3
Adapter, Powerhead to Exhaust Housing		H120	2.5
Upper Motor Mounts		H121	3.0
Exhaust Housing – Outer		H122	6.8
Exhaust Housing – Inner – Upper		H123	6.5
Exhaust Housing – Inner – Lower		H124	2.5
Water Tube and/or Upper Grommet		H125	5.2
Lower Motor Mounts		H126	0.5

Warranty Repair Flat Rate TimesPower Trim (SAP System Code 27)

Power Trim (SAP System Code 27)

Description	Note	Code	Time
Power Trim and Tilt Assembly - Replace	2	T101	1.8
Manifold - Rebuild/Replace		T102	3.0
Motor and Cable Assembly, TNT - Replace		T103	1.6
Valve Body and Pump Assembly - Replace		T105	2.2
Reservoir - Replace		T107	1.6
Trim Cylinder - Repair (One)		T108	2.1
Trim Cylinder - Repair (Both)		T109	2.3
Tilt Cylinder - Repair		T110	2.3
Manual Release Valve		T112	0.5
Power Trim and Tilt Manifold - Replace	2	T401	1.7
Motor and Cable - Replace		T403	1.5
Manual Release Valve		T412	0.5
Trim Level Sending Unit		T421	0.9

Dynamic Power Steering (SAP System Code 29)

Description	Note	Code	Time
Motor and Cable – Replace	16	S401	1.3
Manifold – Replace	16	S402	1.6
DPS Manifold Filters(s) All	16	S405	1.6
Steering Pressure Sensor- Replace	16	S409	1.7
Dynamic Power Steering Motor Coupler- Replace	16	S410	1.1

2

Warranty Repair Flat Rate TimesGearcase (SAP System Code 22)

Gearcase (SAP System Code 22)

Description	Note	Code	Time
Gearcase Assembly – Replace	1,2	G401	2.3
Gearcase Assembly – Reseal (Complete)	1	G402	3.6
Gearcase Housing Only – Replace	1	G403	4.8
Pinion Bearing – Replace	1	G404	4.8
Propshaft Bearing Housing – Replace		G405	1.0
Propshaft Bearing Housing – Rebuild	7	G406	1.4
Reverse Gear Only – Replace	1	G407	1.3
Propshaft or Shifter Clutch Dog- Replace	1	G410	3.8
Forward and/or Pinion Gear- Replace	1	G411	4.8
Water Pump- Replace	1, 13, 15	G413	2.8
Shift Actuator Assembly- Replace	13	G415	2.8
Shifter Assembly – Replace	1	G416	3.5
Driveshaft – Replace	1	G417	4.8

Accessories

Controls

3

Description	Note	Code	Time
Remote Control Assembly – External Mount – Replace		R101	1.4
Remote Control Assembly – External – Repair	***	R102	1.2
Remote Control Assembly – Binnacle Mount – Replace		R103	1.6
Remote Control Assembly – Binnacle – Repair	***	R104	1.3
Remote Control Assembly – Concealed Mount – Replace		R105	1.8
Remote Control Assembly – Concealed Mount – Repair	***	R106	2.0
Shift and Throttle Control Handle – Replace		R107	0.7
Shift and Throttle Cable – Replace		R108	1.0
Trim Switch (In Control Handle)		R109	1.0
Key Switch (in Dash)		R112	0.5
Stop Switch (in Dash)		R113	0.5
Wiring Harness (Engine to Dash)		R114	1.4
Trim Switch (Tiller Handle)		R115	1.0

Accessories**ICON System**

ICON System

Description	Note	Code	Time
Buss Cable Backbone — 20', 25'		IE03	0.5
Buss Cable Backbone — 1', 2', 4'		IE04	0.3
Buss Cable Backbone — 10', 15', 20'		IE05	0.5
Fuse, 3 Amp, Key (Master Power)		IE07	0.5
Fuse, 10 Amp, Network Power Cable		IE08	0.5
Fuse, 30 Amp, ESM		IE09	1.0
Hub, 6 Port		IE11	0.5
Key Switch Panel (Master Power)		IE12	1.0
Key/ Start/ Stop Switch Panel — One/ Two Engine		IE13	1.0
Private Network Power Cable — 10', 25'		IE14	0.5
Remote Control, Single Binnacle — 1 Engine	1	IE16	1.0
Remote Control, Dual Binnacle, — 2, 3, 4 Engine	1	IE17	1.5
Remote Control, Concealed Side Mount — 1 Engine	1	IE18	1.5
Start/ Stop Switch Panel — 2, 3, 4 Engine		IE19	1.0
Start/ Stop Switch Panel — Concealed Side Mount		IE20	1.0
Trim Plate, Control Head		IE21	1.0
Trim/ Tilt Switch Panel — 3, 4 Engine		IE22	0.5

Additional Information

Vouchers — Fluid and Miscellaneous

The following part numbers have been established to issue credit vouchers. These part numbers represent an average amount of dollars for bulk fluids, and motor oil used when making warranty repairs. Select the correct part number from the following list and enter it in the “List All Parts Used in Repair” section of the warranty claim form.

Part Number	Category	Dealer Net U.S.	Dealer Net CA
090105	V6 Gearcase Oil	\$12.75	\$14.08
090301	Degreaser or Marine Cleaner	\$6.50	\$6.95
090302	Heli – Coil Insert	\$1.00	\$1.20
090303	E-TEC Engine Oil	\$7.05	\$7.75
090304	Trim & Tilt Oil	\$2.50	\$2.95
090306	Fuel Hose	\$2.00	\$2.40
770891	SeaStar Hydraulic Fluid	\$17.99	\$23.57

Additional Information**Additional Allowance**

Additional Allowance

Description	Note	Code	Time
Saltwater Allowance (For Major Assembly Only)	1, 3	Y102	0.30
Priming and Painting		Y103	0.60
Heli-Coil Repair (One)	2	Y104	0.30

1. Y102 Saltwater allowance may not be used on new motors.
2. May be used in conjunction with other flat rate codes that may be needed to expose the area to be repaired.
3. Major assembly examples include: powerhead, gearcase, and exhaust housing.

Customer Comment Codes

BRP has revised the customer comment codes to assist our Quality Assurance Department. This change will help to identify and correct any problem areas in a timely manner. New numbers have been assigned to these codes. We now have fewer codes to make your selection easier.

These comment codes are to be used to describe the condition of the failing part number used on the claim. Choose the comment code from the list that is best suited for the failure.

Shipping/ Packaging	
210 -	Missing part in package
211 -	Wrong part in package
212 -	Damaged in shipment
General	
208 -	Missing part on engine
209 -	Wrong part on engine
213 -	Grounded/Shorted
214 -	Open circuit
215 -	Burned
216 -	High output
217 -	No/Low output
218 -	Warning malfunction
219 -	Erratic/Intermittent
220 -	Adjustment
221 -	Foreign material
222 -	Noisy
223 -	Mis-machined
224 -	Mis-assembled
225 -	Tight/Sticking

Additional Information**Customer Comment Codes**

General	
226 -	Kinked/Bent
227 -	Seized/Scuffed
228 -	Restricted
229 -	Pinched
230 -	Fractured/Broken
231 -	Split
232 -	Stripped
233 -	Loose
234 -	Leaking
235 -	Cut
236 -	Deformed/Warped
237 -	Rounded
238 -	Software Revision
239 -	Field Campaign

Request For Review of Flat Rate Time Standard

Dealer Name: _____

Dealer
Code: _____

Sender's
Name: _____

Address: _____

Phone: _____

City, State, Zip: _____

Date: _____

Engine Model #: _____

Serial Number _____

Flat Rate Code: _____ Time from manual: _____ What do you feel time allowed should be? _____

Did the type of boat significantly affect repair time? _____

If the answer above is yes, please give the following information:

Make of Boat: _____ Model: _____ Year: _____

Comments:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Fax to 262-884-5381 or Email warrantyauthor.mps@brp.com

In House use only:

Models	Years Affected
2004-2005	2004-2005
2006-2007	2006-2007
2008-2009	2008-2009
2010-2011	2010-2011
2012-2013	2012-2013
2014-2015	2014-2015
2016-2017	2016-2017
2018-2019	2018-2019
2020-2021	2020-2021
2022-2023	2022-2023
2024-2025	2024-2025
2026-2027	2026-2027
2028-2029	2028-2029
2030-2031	2030-2031
2032-2033	2032-2033
2034-2035	2034-2035
2036-2037	2036-2037
2038-2039	2038-2039
2040-2041	2040-2041
2042-2043	2042-2043
2044-2045	2044-2045
2046-2047	2046-2047
2048-2049	2048-2049
2050-2051	2050-2051
2052-2053	2052-2053
2054-2055	2054-2055
2056-2057	2056-2057
2058-2059	2058-2059
2060-2061	2060-2061
2062-2063	2062-2063
2064-2065	2064-2065
2066-2067	2066-2067
2068-2069	2068-2069
2070-2071	2070-2071
2072-2073	2072-2073
2074-2075	2074-2075
2076-2077	2076-2077
2078-2079	2078-2079
2080-2081	2080-2081
2082-2083	2082-2083
2084-2085	2084-2085
2086-2087	2086-2087
2088-2089	2088-2089
2090-2091	2090-2091
2092-2093	2092-2093
2094-2095	2094-2095
2096-2097	2096-2097
2098-2099	2098-2099
2100-2101	2100-2101
2102-2103	2102-2103
2104-2105	2104-2105
2106-2107	2106-2107
2108-2109	2108-2109
2110-2111	2110-2111
2112-2113	2112-2113
2114-2115	2114-2115
2116-2117	2116-2117
2118-2119	2118-2119
2120-2121	2120-2121
2122-2123	2122-2123
2124-2125	2124-2125
2126-2127	2126-2127
2128-2129	2128-2129
2130-2131	2130-2131
2132-2133	2132-2133
2134-2135	2134-2135
2136-2137	2136-2137
2138-2139	2138-2139
2140-2141	2140-2141
2142-2143	2142-2143
2144-2145	2144-2145
2146-2147	2146-2147
2148-2149	2148-2149
2150-2151	2150-2151
2152-2153	2152-2153
2154-2155	2154-2155
2156-2157	2156-2157
2158-2159	2158-2159
2160-2161	2160-2161
2162-2163	2162-2163
2164-2165	2164-2165
2166-2167	2166-2167
2168-2169	2168-2169
2170-2171	2170-2171
2172-2173	2172-2173
2174-2175	2174-2175
2176-2177	2176-2177
2178-2179	2178-2179
2180-2181	2180-2181
2182-2183	2182-2183
2184-2185	2184-2185
2186-2187	2186-2187
2188-2189	2188-2189
2190-2191	2190-2191
2192-2193	2192-2193
2194-2195	2194-2195
2196-2197	2196-2197
2198-2199	2198-2199
2200-2201	2200-2201
2202-2203	2202-2203
2204-2205	2204-2205
2206-2207	2206-2207
2208-2209	2208-2209
2210-2211	2210-2211
2212-2213	2212-2213
2214-2215	2214-2215
2216-2217	2216-2217
2218-2219	2218-2219
2220-2221	2220-2221
2222-2223	2222

Authorization

Notes

Technician's Notes

Related Documents

[illegible]

Related Documents

Bulletins

[illegible]

Instruction Sheets

[illegible]

Other	
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Index



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