

Warranty Flat Rate Manual

Evinrude E-TEC G2
200, 225, 250, 300 HP, 74°V6 (3.4 L)

12/07/2015

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INTRODUCTION

This manual provides Warranty Flat Rate Allowances for *Evinrude® E-TEC® G2™* 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 G2* 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 tools and *Evinrude E-TEC G2* 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 cut 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 G2* 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)

NOTE CODES

Details for specific repair procedure:

1	Authorization required prior to repair/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.
5	Add 0.5 (H101) for lower engine cover removal when replacing injector/coil assembly on bottom cylinder(s) or replacing lower tube assembly.
6	Includes timing verification.
7	Add 1.0 for counter rotation models.
8	Flat rate time includes removal of lower engine covers.
9	Flat rate time includes removal of oil reservoir. Add 0.5 for removing lower covers (H101) for bottom injector only.
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

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, and 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. Thank you for your help.

Engine Covers and Frames (SAP System Code 28)

DESCRIPTION	NOTE	CODE	TIME
Top, Front, Rear, Port, or Starboard Engine Cover	1	C402	0.1
All Engine Covers	1	C403	0.3
Port or Starboard Side Frame (includes engine covers) – one	1	C404	0.5
Port and Starboard Side Frames (includes engine covers) – both	1	C405	0.7
Front (Motor) Frame (includes engine covers)	1	C406	1.0
Center Frame (includes engine covers)	1	C407	2.5
Decal application		C408	0.2
Rigging Center	16	C409	1.0

Electrical / Ignition (SAP System Code 24)

DESCRIPTION	NOTE	CODE	TIME
Flywheel	6	E401	2.8
Stator	6	E403	3.0
Ignition Coil Assembly (One)		E411	0.5
Ignition Coil Assembly (Each Additional)		E412	0.3
Engine Wiring Harness	1	E417	2.5
Electric Starter Motor - Replace		E420	1.0
Engine Temperature Sensor		E426	1.0
EMM Assembly	1,3,6	E427	3.0
EMM Reprogram	10	EP40	0.5
Crank Position Sensor (CPS)	6	E428	1.0
Air Temperature Sensor (AT)		E437	1.3
Capacitor		E438	0.8
Knock Sensor (One or Both)		E442	1.0
Sensor Assembly Exhaust Temperature (EGT)		E443	1.0
Fuse box		E444	0.5
Fuse 5 amp		E445	0.3
Dynamic Power Steering (DPS) Module Replace		E446	1.5
DPS Module Reprogram		E447	0.5
DPS Sensor Assembly		E448	1.0
Trim and Tilt Relay Assembly		E449	1.3

Fuel System / Oil System (SAP System Code 25)

DESCRIPTION	NOTE	CODE	TIME
Intake Manifold/Reed Plate - Repair/Replace	6	F407	2.0
Fuel Hoses or Connectors - Repair/Replace		F416	0.5
Oil Pump or Pick Up Assembly - Oil Tank		F419	1.6
Mechanical Fuel Lift Pump Assembly	12	F421	1.5
Fuel Filter Assembly		F422	0.8
Water Sensor Assembly		F423	1.0
Vapor Separator and Electric Fuel Pump Assembly		F426	1.5
Oil Pump Assembly - Replace Manifold Assembly	8	F427	1.5
Rear oil distribution pump (One or Both)		F428	1.5
Fuel Injector Assembly - Replace or Service 1 (Includes tubes & o-rings)	4,5	F434	1.5
One or Both Fuel Rails	5	F435	3.0
Throttle Body / Throttle Valve Assembly		F437	1.3
Vapor Vent Solenoid		F438	1.0
Fuel Injector Assembly - (Each Additional, Includes tubes & o-rings)	4,5	F439	0.5
Oil Tank Assembly Replace	12	F440	2.0
Oil filter, inline		F442	0.8
Oil Level Switch		F443	1.3
Oil Tank Vent Valve		F444	0.5

Powerhead (SAP System Code 21)

DESCRIPTION	NOTE	CODE	TIME
Powerhead - Replace (RPH)	1,2,6,12	P401	13.5
Cylinder Head and O-ring (One)	12	P402	2.7
Cylinder Head and O-ring (Both)	12	P403	3.7
Thermostat (One)	12	P406	1.7
Thermostat (Both)	12	P407	2.0
Cylinder and Crankcase - Reseal	1,6, 12	P409	6.2
Cylinder and Crankcase - Rebuild	1,6, 12	P410	16.0
Crankshaft - Replace	1,6	P411	9.5
Upper Crankshaft Seal	6	P412	3.3
Lower Crankshaft Seal	12	P413	4.2
Upper Main Bearing	6	P414	3.0
Lower Main Bearing	12	P415	4.8
O-rings - Powerhead to Adapter	12	P417	2.5
Water Pressure Valve Assembly	12	P421	1.5
Flywheel air duct and extension (volute)	12	P422	3.0
Water filter (to EMM/DPS module)	12	P423	1.3
Water filter (to water valve 250 H.O./300)	12	P424	1.0
Cooling Water Hose (Water valve to T-fitting /T-fitting to exhaust runner) (one or all)	12	P425	1.0
Water Fitting (Water valve) (one or both)	12	P426	1.0
Cooling Water Hoses (Thermostat to T-fitting to adapter) (one or all)	12	P427	1.0
Cooling Water Hoses (Cylinder head to Y-fitting to adapter) (one or all)	12	P428	3.0
Cooling Water Hoses (Block water filter to t-fitting /t-fitting to EMM) (one or both)	12	P429	1.5
Cooling Water Hoses (T-fitting to DPS Module to adapter) (one or both)	12	P430	1.0
Cooling Water Hose and Water Fitting (Block flushing) (one or both)	12	P431	1.5
Cooling Water Hose (EMM to vapor separator)	12	P432	3.0
All Other Powerhead Hoses	12	P433	1.0

Midsection (SAP System Code 23)

DESCRIPTION	NOTE	CODE	TIME
Steering Shaft End Cap Assembly	16	H402	4.5
Thrust Ramps (Both)		H406	1.0
Stern Brackets (One or Both)		H407	1.5
Lever - Tilt Lock		H419	0.5
Upper Mount		H421	4.6
Exhaust Housing - Outer	1	H422	6.5
Inner Exhaust Adaptor	1	H423	6.5
Water Tube and/or Upper Grommet	1	H425	6.5
Lower Mounts	12	H426	2.25
Exhaust Back Pressure Nipple		H427	1.2
Exhaust Water Valve (250 H.O./300)		H428	1.5
Stern and Swivel Ay	1,2,16	H429	4.0
Steering Bleed		H430	0.7
Seal, exhaust housing to frames		H432	0.6
Cooling Water Hose (Muffler to exhaust pipe)		H433	1.0
Cooling Water Hose (Exhaust adapter to exhaust housing - rear)		H434	1.0
Cooling Water Hose (Exhaust adapter to exhaust housing - front)		H435	1.0
Lower Mount Bracket		H436	2.25

Power Trim (SAP System Code 27)

DESCRIPTION	NOTE	CODE	TIME (HRS)
Power Trim and Tilt Manifold- Replace	2	T401	3.0
Motor and Cable - Replace		T403	2.0
Reservoir - Replace		T407	5.0
Trim Cylinder – Replace (Rod, Roller & Cap Ay) (Both)		T408	1.5
Power Trim and Tilt – Drain / Flush / Bleed		T409	1.0
Manual Release Valve		T412	1.0
Relay or Module Assembly		T415	1.3
Trim and Tilt Switch Engine Cover		T417	0.8
Sending Unit		T421	2.0
Trim Bleed		T431	1.5

Dynamic Power Steering (SAP System Code 29)

DESCRIPTION	NOTE	CODE	TIME (HRS)
Motor and Cable - Replace		S401	2.0
Manifold - Replace		S402	5.0
DPS Sensor Assembly		S404	1.0
Filter (all)		S405	5.0
DPS 1-Helm Pressure Sensor Replace		S406	5.0
DPS 1-Pump Pressure Sensor Replace		S407	5.0
DPS 2-Pressure Sensor Replace (Either)		S408	5.0
Steering Pressure Sensor Replace		S409	5.0

Gearcase (SAP System Code 22)

DESCRIPTION	NOTE	CODE	TIME (HRS)
Gearcase Assembly	1,2	G401	2.5
Gearcase Assembly - Reseal (Complete)	1	G402	3.8
Gearcase Housing Only - Replace	1	G403	5.0
Pinion Bearing - Replace	1	G404	5.4
Propshaft Bearing Housing - Replace		G405	1.2
Propshaft Bearing Housing - Rebuild	7	G406	1.4
Reverse Gear Only - Replace	1	G407	1.3
Lower Driveshaft or Upper Bearing Housing Replace (requires shimming)	1	G408	4.0
Propshaft or Shifter Clutch Dog	1	G410	4.0
Forward and/or Pinion Gear	1, 14	G411	5.0
Shift Housing and/or Forward Bearing Assembly	1	G412	5.0
Water Pump	1, 13, 15	G413	3.0
Additional Time for Pressed Rear Bearing Carrier		G414	0.4
Shift Actuator Assembly	13	G415	3.0

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	\$9.00	\$11.48
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

ADDITIONAL ALLOWANCE

Description	Note	Code	Time
Saltwater Allowance (for major assembly only)	1	Y102	0.30
Heli-Coil Repair (One)		Y104	0.30

1. Y102 Saltwater allowance may not be used on new motors.

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

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
- 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:

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

In House use only:

Models Years Affected _____

Authorization _____

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