

HOW TO USE YOUR FLAT RATE MANUAL

This manual is used to determine the standard labor time allowed for replacement of parts covered by warranty during the period the warranty is in effect. The time for those parts not listed should be determined from an operation closely related to the replacement of that part.

- **Basis for flat rate times:**

- Liberal allowance is added to the net servicing time.
- Times specified are based on the premise that the necessary tools are close at hand and the work is performed by a mechanic with normal skills.
- Time required for inspection, adjustment, and operational test following the servicing is included in the time.
- If applicable, times shown include engine R&R.

- **Method of computing times:**

The job times are listed in tenths of an hour to simplify computation.

0.3 = 18 minutes

5.6 = 5 hours and 36 minutes

CONVERSION CHART

HOURS	MINUTES	HOURS	MINUTES
0.1	6	0.6	36
0.2	12	0.7	42
0.3	18	0.8	48
0.4	24	0.9	54
0.5	30	1.0	60

- **Job numbers:**

Each job is numbered for easy reference. When filling out the Warranty Claim Form W.O. 2, be sure to fill in the job number in the appropriate box. If the job is not listed in the Flat Rate Manual, explain exactly what you did and how long it took, in the Description of Defect section.

- **Computing flat rate time:**

When several jobs are performed at the same time, determine the time as follows:

- Jobs not related.*

The hours for the job are obtained by adding the time for each part replaced.

Example: Replace cylinder base gasket and clutch cable.

JOB NO.	JOB DESCRIPTION	HOURS
E1-11	CYLINDER BASE GASKET	6.8
C1-10	CLUTCH CABLE	0.2

The time for the job is: $6.8 + 0.2 = 7.0$

b. Jobs related.

Take the hours for the last part to be replaced.

Example: Replace one piston and cylinder head gasket.

JOB NO.	JOB DESCRIPTION	HOURS
E1-9	CYLINDER HEAD GASKET	5.7
E1-13	PISTON (ONE)	7.1

The time for the job is 7.1.

c. Jobs partially related.

Total up the hours for all of the parts replaced but do not add the time for the duplicated operation.

Example: Rebuild transmission and replace clutch cover and cylinder head cover.

JOB NO.	JOB DESCRIPTION	HOURS
E5-1	TRANSMISSION REBUILD	6.7
E3-32	CLUTCH COVER	0.9
E1-32	CYLINDER HEAD COVER	0.6

The time for the job is $(6.7 + 0.6) = 7.3$.

Clutch cover is duplicated operation.

d. Duplicate parts replacement or operations are included with the flat rates where applicable.

• Operations other than replacing parts.

a. Removal and installation.

ITEM	JOB DESCRIPTION	HOURS
1	Engine	3.8

b. Recondition.

ITEM	DESCRIPTION	HOURS
1	Valve seat grinding and lapping (each valve)	0.3
2	Cylinder honing (one) (each additional)	0.2 0.1

c. Adjustment, measurement and cleaning.

ITEM	JOB DESCRIPTION	HOURS
1	Check and/or adjust ignition timing	0.3
2	Spark plug cleaning and adjustment – All	0.3
3	Valve lash adjustment	1.0
4	Carburetor synchronization	0.5
5	Clutch adjustment	0.2
6	Air cleaner element-cleaning	0.2
7	Compression test	0.3
8	Battery-checking of electrolyte level and specific gravity	0.2
9	Engine oil-inspection (excluding oil change)	0.1
10	Oil filter – replace	0.2
11	Brake-operation test	0.1
12	Headlight-adjustment	0.1

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**SECTION E-1
HEAD COVER — CYLINDER HEAD — CYLINDER — PISTONS**

JOB NO.	JOB DESCRIPTION	HOURS
E1-2	CYLINDER HEAD COVER. (COVER PACKING)	0.6 0.6
E1-5	TACHOMETER GEAR	0.2
E1-6	TACHOMETER GEAR OIL SEAL	0.2
E1-7	OIL POOL PLATE (ONE OR ALL)	0.4
E1-8	CYLINDER HEAD	13.0
E1-9	CYLINDER HEAD GASKET	5.7
E1-10	CYLINDER	8.3
E1-11	CYLINDER BASE GASKET	6.8
E1-12	CYLINDER STUD (ONE) (ADD FOR EACH ADDITIONAL)	6.9 0.1
E1-13	PISTONS (ONE) (ADD FOR EACH ADDITIONAL)	7.1 0.3
E1-14	RINGS (ONE SET) (ADD FOR EACH ADDITIONAL)	7.2 0.3
E1-15	PISTON PINS (ONE) (ADD FOR EACH ADDITIONAL)	7.0 0.1

**SECTION E-2
VALVE TRAIN**

JOB NO.	JOB DESCRIPTION	HOURS
E2-1	CAMSHAFT. (ALL CAMS) (LEFT INTAKE) (LEFT EXHAUST) (RIGHT INTAKE) (RIGHT EXHAUST) (BOTH LEFT) (BOTH RIGHT) (BOTH INTAKE) (BOTH EXHAUST)	3.0 1.5 1.5 2.0 2.5 2.0 2.6 2.0 2.6
E2-3	CAM JOINT. (ONE) (BOTH)	1.2 1.6
E2-6	CAM SPROCKET (INTAKE) (EXHAUST)	1.8 2.4
E2-7	CAM CHAIN ("A" EXHAUST) ("B" INTAKE)	8.4 2.2
E2-8	CAM CHAIN TENSIONER ASSEMBLY ("A" EXHAUST) ("B" INTAKE)	7.5 2.2
E2-9	CAM CHAIN TENSIONER SPRING ("A" EXHAUST) ("B" INTAKE)	7.5 2.2
E2-12	CAM CHAIN GUIDE ("A" EXHAUST) ("B" INTAKE)	6.3 0.4
E2-19	VALVE LIFTER CUP (1 THRU 12) (13 THRU 24)	6.5 6.6
E2-20	VALVE SPRING — INNER AND/OR OUTER (ONE) (ADD FOR EACH ADDITIONAL)	6.4 0.1
E2-21	INTAKE OR EXHAUST VALVE. (ONE) (ADD FOR EACH ADDITIONAL)	6.6 0.3
E2-22	INTAKE OR EXHAUST VALVE GUIDE (ONE) (ADD FOR EACH ADDITIONAL)	6.9 0.5
E2-23	INTAKE OR EXHAUST VALVE GUIDE SEAL (ONE) (ADD FOR EACH ADDITIONAL)	6.3 0.1

**SECTION E-3
CRANKSHAFT — CRANKCASE — CRANKCASE COVERS**

JOB NO.	JOB DESCRIPTION	HOURS
E3-1	CRANKSHAFT	9.2
E3-4	MAIN BEARINGS	8.5
E3-5	CONNECTING ROD (ONE) (ADD FOR EACH ADDITIONAL)	8.4 0.3
E3-6	CONNECTING ROD BEARINGS (ONE SET) (ADD FOR EACH ADDITIONAL SET)	5.6 0.2
E3-10	PRIMARY DRIVE CHAIN	8.4
E3-11	PRIMARY DRIVE CHAIN TENSIONER	5.5
E3-12	PRIMARY SHAFT	5.7
E3-13	PRIMARY SHAFT SEALS	5.6
E3-14	PRIMARY DRIVEN GEAR (PRIMARY SHAFT) (CLUTCH)	0.7 0.7
E3-15	PRIMARY DRIVEN SPROCKET	5.6
E3-16	CRANKCASE SET	10.2
E3-22	RIGHT CRANKCASE END COVER AND/OR GASKET	0.2
E3-24	LEFT CRANKCASE END COVER AND/OR GASKET	0.2
E3-30	GENERATOR COVER (COVER "A") (COVER "B")	0.5 0.6
E3-31	GENERATOR COVER GASKET (CENTER) (REAR)	0.3 0.2
E3-32	CLUTCH COVER	0.9
E3-33	CLUTCH COVER GASKET	0.5
E3-34	SHIFT LINKAGE COVER	0.5
E3-35	SHIFT LINKAGE COVER GASKET	0.4
E3-36	OIL PAN AND/OR PACKING	0.3

**SECTION E-4
CLUTCH — OIL PUMP**

JOB NO.	JOB DESCRIPTION	HOURS
E4-1	CLUTCH REBUILD	1.3
E4-3	CLUTCH ARM AND/OR SEAL	0.6
E4-4	OIL PUMP ASSEMBLY	5.7
E4-9	OIL PUMP SPROCKET (DRIVE AND/OR DRIVEN)	0.8
E4-10	OIL PUMP CHAIN	0.8
E4-11	OIL PUMP PICK-UP SCREEN	0.3
E4-12	OIL FILTER AND/OR OIL FILTER COVER OR PACKING	0.2
E4-13	OIL LINE (TOP END) OIL COOLER (ONE) (BOTH)	0.4 2.7 2.8
E4-14	OIL PASSAGE PIPE	0.5
E4-16	OIL COOLER	0.2

SECTION E-5
TRANSMISSION

JOB NO.	JOB DESCRIPTION	HOURS
E5-1	TRANSMISSION REBUILD	6.7
E5-2	TRANSMISSION SHIFT LINKAGE STOPPERS AND/OR SPRINGS	0.6
E5-4	SHIFT SHAFT AND/OR RETURN SPRING	0.6
E5-5	SHIFT SHAFT SEAL	0.6
E5-7	SHIFT LEVER ASSEMBLY	0.2
E5-9	OUTPUT SHAFT SEAL	5.4
E5-10	DRIVE SPROCKET	0.3

SECTION E-6
GENERATOR — IGNITION SYSTEM — STARTER MOTOR

JOB NO.	JOB DESCRIPTION	HOURS
E6-1	GENERATOR ASSEMBLY	0.7
E6-3	STATOR	0.6
E6-4	ROTOR	0.7
E6-5	BRUSHES	0.5
E6-6	GENERATOR SHAFT	0.5
E6-7	GENERATOR SHAFT SEAL	0.5
E6-8	GENERATOR COUPLING PLATES	(PLATE A) 0.2 (PLATE B) 0.4
E6-9	IGNITION COIL	(ONE) 0.3 (ALL) 0.4
E6-10	PULSER GENERATOR	0.6
E6-11	SPARK UNIT	0.7
E6-14	ADVANCER	0.4
E6-15	ADVANCER SHAFT	0.9
E6-16	ADVANCER SHAFT SEAL	0.9
E6-17	STARTER MOTOR ASSEMBLY	0.8
E6-18	STARTER MOTOR REBUILD	0.9
E6-19	STARTER CLUTCH	6.0
E6-20	STARTER CLUTCH GEAR	6.0
E6-23	STARTER IDLE GEAR AND/OR SHAFT	5.9
E6-24	STARTER MOTOR CABLE	0.6

**SECTION E-7
CARBURETOR — AIR CLEANER**

JOB NO.	JOB DESCRIPTION	HOURS
E7-1	INDIVIDUAL CARBURETOR ASSEMBLY (ONE)	3.8
	(ADD FOR EACH ADDITIONAL)	0.1
E7-2	CARBURETOR REBUILD (ONE)	4.0
	(ADD FOR EACH ADDITIONAL)	0.2
E7-3	FLOAT AND/OR VALVE (ONE)	2.8
	(ADD FOR EACH ADDITIONAL)	0.1
	(EACH #5 OR 6 ONLY)	0.3
E7-4	ACCELERATOR PUMP DIAPHRAM SET	2.9
E7-5	AIR CUT VALVE	0.2
E7-12	CARBURETOR INSULATOR — MANIFOLD. (ONE OR ALL)	2.8
E7-13	AIR CLEANER CASE (FRONT SECTION)	2.7
	(REAR SECTION)	0.9
E7-14	AIR CLEANER ELEMENT	0.3
E7-15	BREATHER SEPARATOR TANK	0.3

**SECTION C-1
HANDLEBAR – CABLES – HOSES – FRONT SUSPENSION**

JOB NO.	JOB DESCRIPTION	HOURS
C1-1	STEERING HANDLE (RIGHT)	0.2
	(LEFT)	0.2
C1-4	HAND LEVER BRACKET (LEFT ONLY)	0.2
C1-5	HAND LEVER (RIGHT)	0.1
	(LEFT)	0.1
C1-8	THROTTLE GRIP PIPE	0.3
C1-9	THROTTLE CABLE (OPEN)	2.7
	(CLOSE)	0.4
C1-10	CLUTCH CABLE	0.2
C1-14	CHOKE CABLE	0.2
C1-15	INSTRUMENT CABLE (SPEEDO)	0.1
	(TACH)	0.1
C1-16	MASTER CYLINDER (FRONT)	0.3
	(REAR)	0.5
C1-17	MASTER CYLINDER REBUILD (FRONT)	0.6
	(REAR)	0.8
C1-18	MASTER CYLINDER RESERVOIR (REAR ONLY)	0.2
C1-19	BRAKE HOSE FRONT UPPER	0.2
	FRONT LOWER (ONE)	0.2
	FRONT LOWER (BOTH)	0.3
	REAR CALIPER	0.2
	REAR RESERVOIR	0.2
C1-20	BRAKE HOSE JOINT (FRONT ONLY)	0.3
C1-21	INSTRUMENT (ONE OR BOTH)	0.3
C1-22	INSTRUMENT COVER (UPPER AND/OR LOWER)	0.3
C1-23	GAUGE (VOLTS)	0.4
C1-25	HEADLIGHT CASE STAY	0.5
C1-26	HEADLIGHT CASE	0.3
C1-27	HEADLIGHT RIM	0.2
C1-28	TOP FORK BRIDGE	0.5
C1-29	STEERING STEM	2.0
C1-30	STEERING HEAD BEARINGS	1.9
C1-31	FRONT FORK ASSEMBLY (ONE)	0.4
	(BOTH)	0.5
C1-32	FRONT FORK SPRING (EACH)	0.1
C1-33	FRONT FORK PIPE (ONE)	0.6
	(BOTH)	0.9
C1-34	FRONT FORK SLIDER (ONE)	0.7
	(BOTH)	1.1
C1-35	FRONT FORK SEAL (ONE)	0.7
	(BOTH)	1.1
C1-36	FRONT FORK DUST SEAL (ONE)	0.5
	(BOTH)	0.7
C1-37	FRONT FENDER	0.2

**SECTION C-2
FRAME — FUEL TANK — EXHAUST SYSTEM**

JOB NO.	JOB DESCRIPTION	HOURS
C2-1	FRAME	6.4
C2-2	SEAT/TAIL SECTION. (ONE OR BOTH)	0.2
C2-4	FOOT PEG HOLDER (RIGHT)	0.3
		(LEFT) 0.3
C2-6	FOOT PEG (EACH)	0.1
C2-8	PASSENGER PEG (EACH)	0.1
C2-9	SIDE STAND	0.2
C2-10	CENTER STAND	0.5
C2-11	TOOL BOX	0.1
C2-12	BATTERY BOX	0.8
C2-13	REAR BRAKE PEDAL	0.1
C2-14	REAR BRAKE PEDAL SHAFT	0.3
C2-16	SIDE COVER (ONE OR BOTH)	0.1
C2-20	FUEL TANK ASSEMBLY	0.4
C2-21	FUEL TANK EMBLEMS (ONE OR BOTH)	0.1
C2-22	FUEL PETCOCK.	0.2
C2-23	FUEL STRAINER SCREEN	0.2
C2-30	COMPLETE EXHAUST ASSEMBLY (EACH SIDE)	0.4
C2-34	EXHAUST MUFFLER BRACKET (EACH)	0.2

**SECTION C-3
REAR SUSPENSION — CHAIN AND GUARD — REAR FENDER**

JOB NO.	JOB DESCRIPTION	HOURS
C3-1	SWINGARM.	1.0
C3-2	SWINGARM BUSHINGS.	1.0
C3-3	SWINGARM COLLAR.	0.9
C3-4	REAR SHOCK ABSORBER ASSEMBLY. (RIGHT)	0.1
		(LEFT) 0.3
C3-5	REAR SHOCK ABSORBER DAMPER (RIGHT)	0.2
		(LEFT) 0.4
C3-6	REAR SHOCK ABSORBER SPRING (RIGHT)	0.2
		(LEFT) 0.4
C3-7	DRIVE CHAIN	0.9
C3-9	CHAIN GUARD	0.1
C3-11	REAR FENDER (MAIN AND/OR INNER)	0.2
C3-12	TAIL LIGHT/LICENSE BRACKET.	0.2
C3-13	REAR HAND RAIL.	0.2

 SECTION C-4
 ELECTRICAL

JOB NO.	JOB DESCRIPTION	HOURS
C4-1	BATTERY	0.4
C4-2	BATTERY CABLES.	(POSITIVE) 0.1 (GROUND) 0.2
C4-3	FUSE BLOCK AND MAIN FUSE HOLDER	(BLOCK) 0.2 (HOLDER) 0.1
C4-4	VOLTAGE REGULATOR — RECTIFIER	0.8
C4-10	TURN SIGNAL FLASHER UNIT	0.1
C4-12	HORN	0.1
C4-13	STARTER SOLENOID	0.2
C4-14	WIRE HARNESS	1.3
C4-15	HEADLIGHT ASSEMBLY AND/OR BULB.	0.1
C4-16	TURN SIGNAL ASSEMBLY	0.2
C4-17	TAIL LIGHT ASSEMBLY	0.2
C4-18	INSTRUMENT BULB AND/OR INDICATOR BULBS	0.3
C4-20	IGNITION SWITCH KEY SET.	0.5
C4-23	COMBINATION SWITCH CASE	(RIGHT) 0.6 (LEFT) 0.3
C4-24	BRAKE LIGHT SWITCH.	(FRONT) 0.1 (REAR) 0.2
C4-26	NEUTRAL LIGHT SWITCH	0.5
C4-27	OIL PRESSURE SWITCH.	0.2

SECTION W-1
FRONT WHEEL — FRONT BRAKES

JOB NO.	JOB DESCRIPTION	HOURS
W1-1	FRONT WHEEL ASSEMBLY	0.7
W1-4	FRONT TIRE	0.6
W1-6	FRONT VALVE STEM	0.6
W1-7	FRONT AXLE	0.2
W1-8	FRONT WHEEL BEARINGS	0.5
W1-9	SPEEDO GEAR BOX	0.2
W1-12	FRONT BRAKE PADS (FOR EACH SET)	0.2
W1-13	FRONT CALIPER ASSEMBLY (ONE)	0.3
		(BOTH) 0.5
W1-14	FRONT CALIPER ASSEMBLY REBUILD (ONE)	0.6
		(BOTH) 1.1
W1-15	FRONT DISC (RIGHT)	0.3
		(LEFT OR BOTH) 0.4

SECTION W-2
REAR WHEEL — REAR BRAKES

JOB NO.	JOB DESCRIPTION	HOURS
W2-1	REAR WHEEL ASSEMBLY	0.9
W2-4	REAR TIRE	0.8
W2-6	REAR VALVE STEM	0.8
W2-7	REAR AXLE	0.4
W2-8	REAR WHEEL BEARINGS (INCLUDES FLANGE BEARING)	0.9
W2-9	REAR SPROCKET/SPROCKET FLANGE (SPROCKET)	0.5
		(FLANGE) 0.7
W2-10	REAR WHEEL DAMPERS	0.5
W2-11	REAR BRAKE STOPPER ARM	0.3
W2-13	REAR BRAKE PADS	0.2
W2-14	REAR CALIPER ASSEMBLY	0.7
W2-15	REAR CALIPER REBUILD	0.5
W2-16	REAR DISC	0.6