

1-0222 Engine Recoil Start-EPA (RV170)



Vendor:	Rato
Model:	RV170 A1302001266
Date:	07/03/13
Drawn By:	Adam Coates

EMISSION CONTROL INFORMATION

FAMILY NAME: DCRPS.1731GB EXH ECS: TWC
 CARB EVAP FAMILY: OP1V EVAP ECS: OP
 EPA EVAP FAMILY: DCRPPNHEQDB1 ENGINE DISPLACEMENT: 173cc
 THIS ENGINE MEETS U.S.EPA PH3 & 2013 CALIFORNIA EXH AND
 EVP EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES.
 THIS ENGINE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE.
 NO OTHER ADJUSTMENTS NEEDED.
 THE AIR INDEX OF THIS ENGINE IS 3

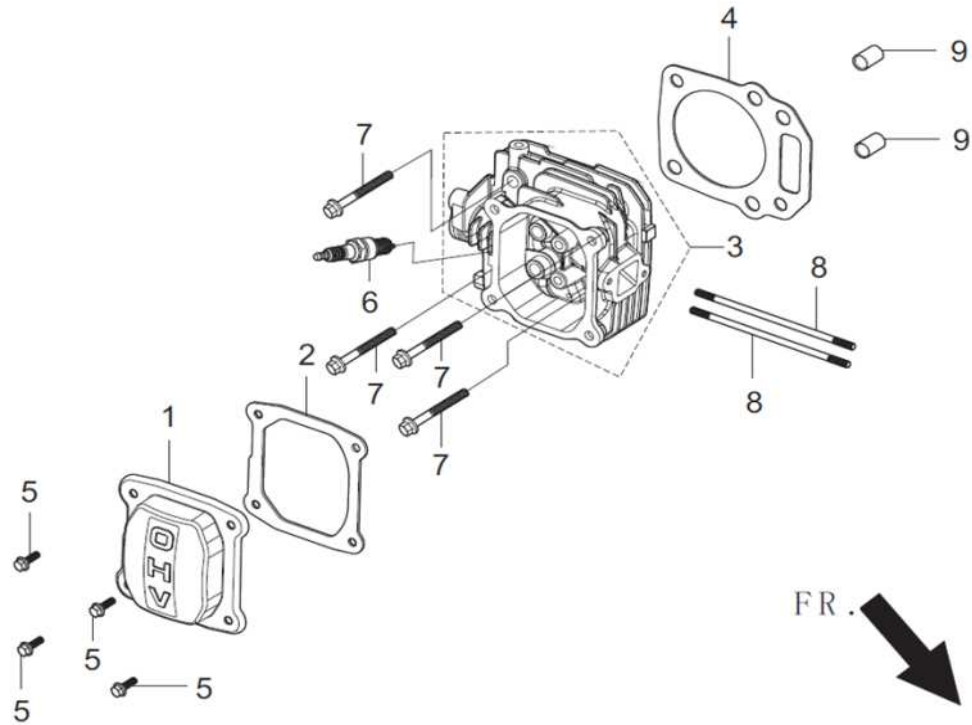
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MOST CLEAN 0 2 4 6 8 10 LEAST CLEAN
 NOTE: THE LOWER THE AIR INDEX, THE LESS POLLUTION.
 THIS ENGINE IS CERTIFIED TO BE EMISSIONS COMPLIANT FOR
 THE FOLLOWING USE:
 MODERATE(125HOURS) INTERMEDIATE(250HOURS)
 EXTENDED(500HOURS)

CHECK OWNER'S MANUAL FOR FURTHER DETAILS.
 DOM:2013 J ● M A M J J A S O N D
 CHONGQING RATO POWER MANUFACTURING CORPORATION

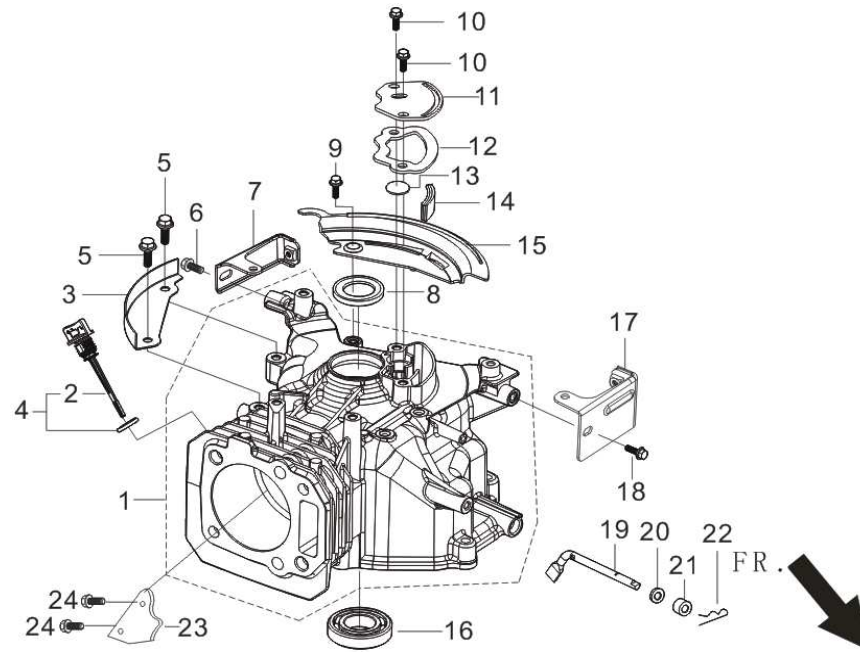
DATE:	DESCRIPTION:	BY:
9/16/2013	ADDED 45-0667 HOSE FUEL STEM	ALC
11/6/2013	UPDATED SEVERAL PART NUMBERS AND PICTURES	ALC
1/22/2014	UPDATED AND ADDED PART NUMBERS AND UPDATED FUEL TANK ASSEMBLY	ALC
6/17/2014	UPDATED AND ADDED PART NUMBERS FIG 4-03 WENT TO SET, FIGURE 5-08 WENT TO SET	ALC

FIG.1 CYLINDER HEAD SUBASSEMBLY



REF.NO.	DESCRIPTION	QTY	MITM	RATO
1-01	CYLINDER HEAD COVER SUBASSY	1	45-0190	12411-Z030120-0000
1-02	GASKET- CYLINDER HEAD COVER	1	45-0191	12004-Z030110-0000
1-03	CYLINDER HEAD SUBASSY	1	45-0687	12140-Z340530-0099
1-04	GASKET-CYLINDER HEAD	1	45-0599	12131-Z340110-0000
1-05	BOLT-STOPPER BRACKET	4	80-0060	90007-0612-A1
1-06	SPARK PLUG	1	45-0676	30010-Z030310-0000
1-07	BOLT- CYLINDER HEAD	4	45-0600	12003-Z030110-0000
1-08	STUD-CARBURETOR	2	45-0601	90204-Z030110-0000
1-09	PIN-CYLINDER HEAD	2	45-0602	90502-1014-00

FIG.2 CRANKCASE/GOVERNOR GEAR ASSEMBLY

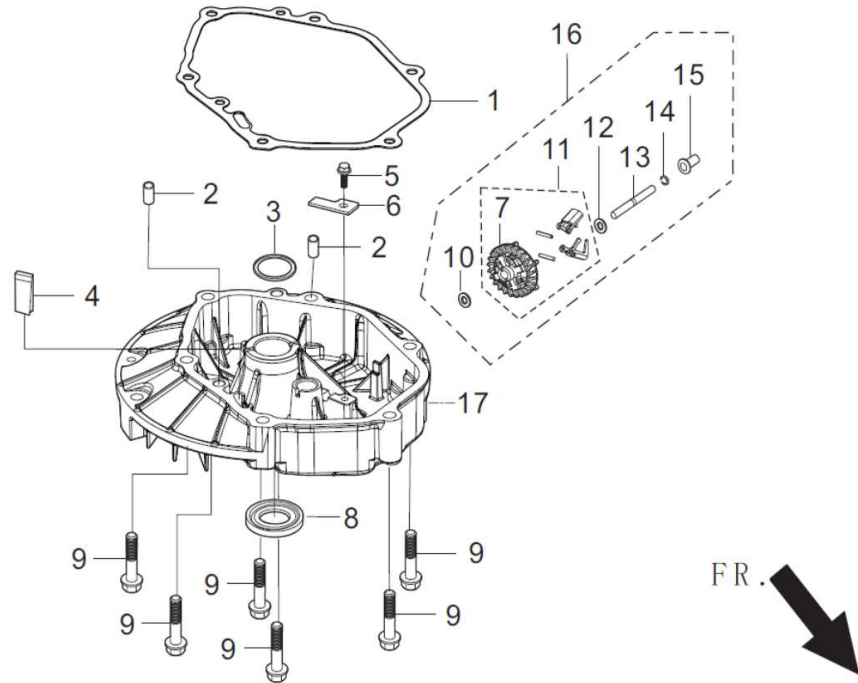


REF.NO.	DESCRIPTION	QTY	MITM	RATO
2-01	CRANKCASE SUBASSY	1	45-0688	11310-Z340520-0099
2-03	CRANKCASE SHIELD	1	45-0604	19308-Z030110-0000
2-04	OIL DIPSTICK SUBASSY	1	45-0194	15010-Z030120-Q500
2-05	BOLT-LOW OIL SHUT DOWN	2	45-0315	90001-0612-01
2-06	BOLT-STOPPER BRACKET	1	80-0060	90007-0612-A1
2-07	BRACKET-FUEL TANK	1	45-0675	16608HZ030120-0000
2-08	SEAL-OIL	1	45-0195	90682-Z030120-0000
2-09	BOLT- ENGINE OIL SENSOR	1	45-0316	90001-0616-01
2-10	BOLT- LOW OIL SHUT DOWN	2	45-0315	90001-0612-01
2-11	PLATE-BREATHER GROOVE COVER	1	45-0692	11333-Z250210-0000
2-12	GASKET-BREATHER GROOVE	1	45-0693	11332-Z250410-0000
2-13	BREATHER RING	1	45-0694	11321-Z030110-0099

FIG.2 CRANKCASE/GOVERNOR GEAR ASSEMBLY / CONTINUED

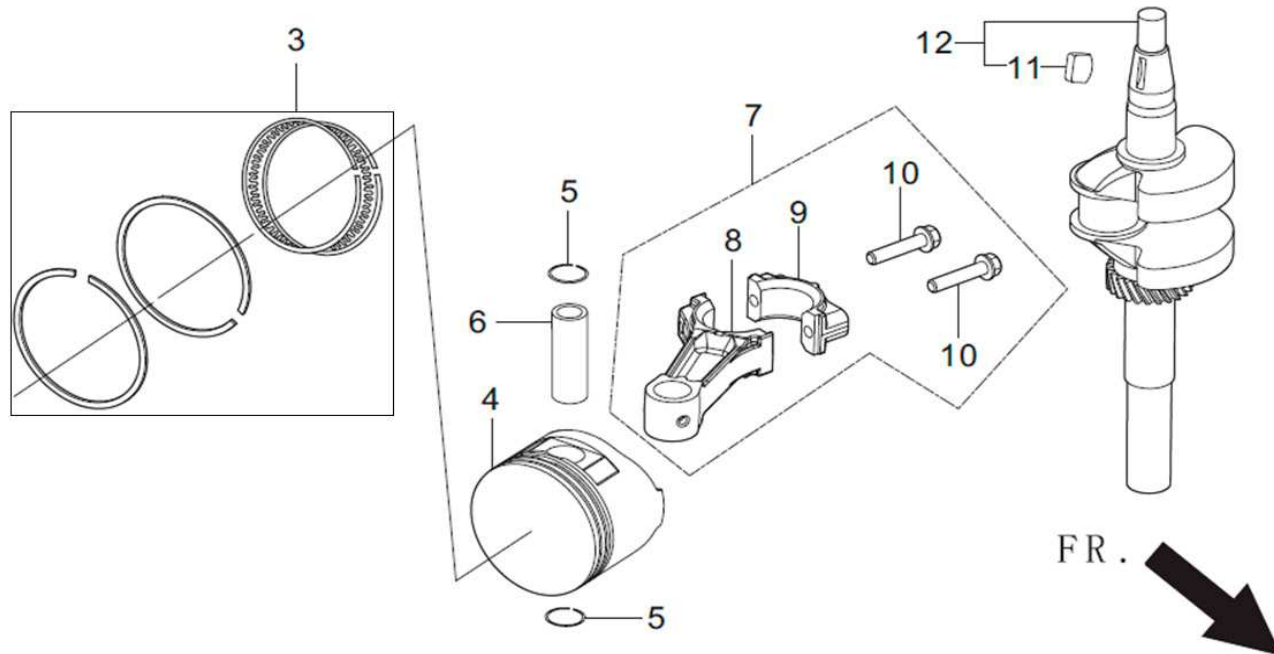
REF.NO.	DESCRIPTION	QTY	MITM	RATO
2-14	STRAINER	1	45-0695	11331-Z250110-0000
2-15	SHIELD-CRANKCASE REAR	1	45-0696	19351-Z030120-0000
2-16	BALL BEARING	1	45-0699	90548-0205-CL
2-17	BRACKET-CRANKCASE FRONT	1	45-0706	16607HZ030120-0000
2-18	BOLT-STOPPER BRACKET	1	80-0060	90007-0612-A1
2-19	GOVERNOR ARM	1	45-0613	16061-Z030120-0000
2-20	WASHER-GOVERNOR ARM	1	45-0480	90408-Z010210-0000
2-21	OIL-SEAL	1	45-0614	90682-Z030210-0000
2-22	PIN	1	45-0328	90501-Z010110-0000
2-23	PLATE-OIL RECYCLING	1	N/A	11306-Z340110-0000
2-24	BOLT	2	N/A	90001-0510-01

FIG.3 CRANKCASE COVER SUBASSEMBLY



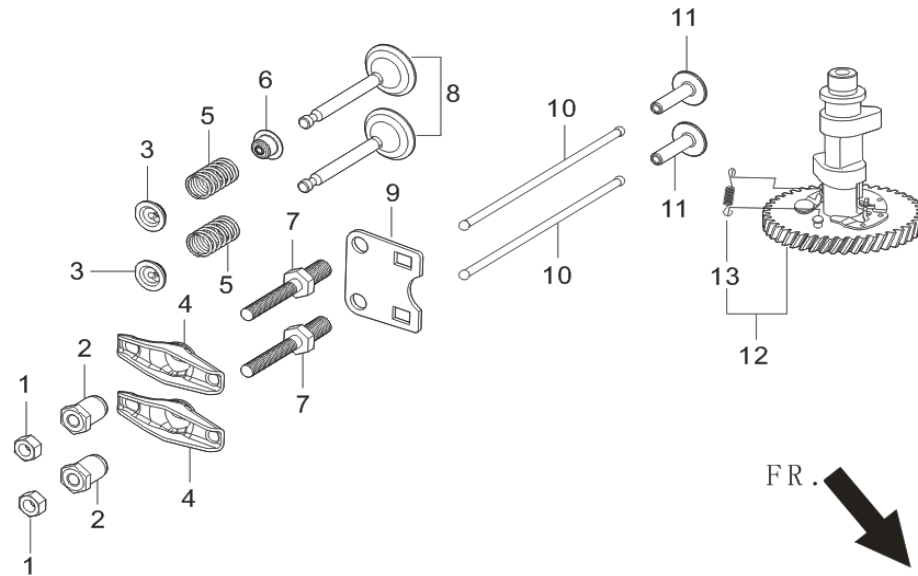
REF.NO.	DESCRIPTION	QTY	MITM	RATO
3-01	GASKET-CRANKCASE	1	45-0196	11001-Z030110-0000
3-02	PIN - GASKET	2	45-0570	90502-0812-00
3-03	WASHER-CRANKCASE COVER	1	45-0616	90408-Z030210-0000
3-04	BLOCK-RETURNING OIL	1	45-0617	11341-Z030110-0000
3-05	BOLT- LOW OIL SHUT DOWN	1	45-0315	90001-0612-01
3-06	GOVENOR PLATE SPINDLE	1	45-0618	16013-Z030120-0000
3-08	SEAL-OIL	1	45-0197	90682-Z030320-0000
3-09	BOLT-CRANKCASE M8x1.25x 50mm	6	45-0707	90001-0850-01
3-16	GOVERNOR GEAR ASSY	1	45-0620	16400-Z030110-0000
3-17	CRANKCASE COVER	1	45-0621	11411-Z340410-0000

FIG.4 PISTON SUBASSEMBLY



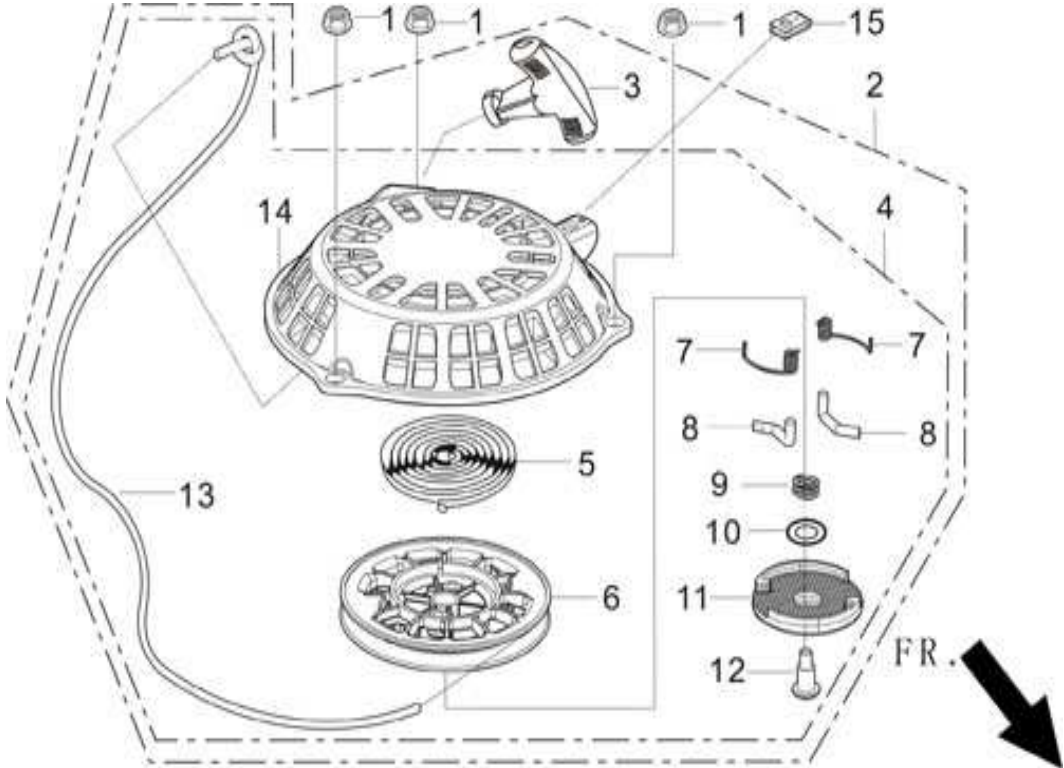
REF.NO.	DESCRIPTION	QTY	MITM	RATO
4-03	PISTON RING SET	1	45-0708	13200-Z340110-0000
4-04	PISTON	1	45-0625	13111-Z340110-0000
4-05	PISTON-RING	2	45-0350	13122-Z010110-0000
4-06	PIN-PISTON	1	45-0486	13121-Z010110-0000
4-07	ROD-CONNECTING	1	45-0626	13010-Z030110-0000
4-12	CRANKSHAFT ASSY	1	45-0627	13300-Z030510-0000

FIG.5 VALVE TRAIN/CAMSHAFT SUBASSEMBLY



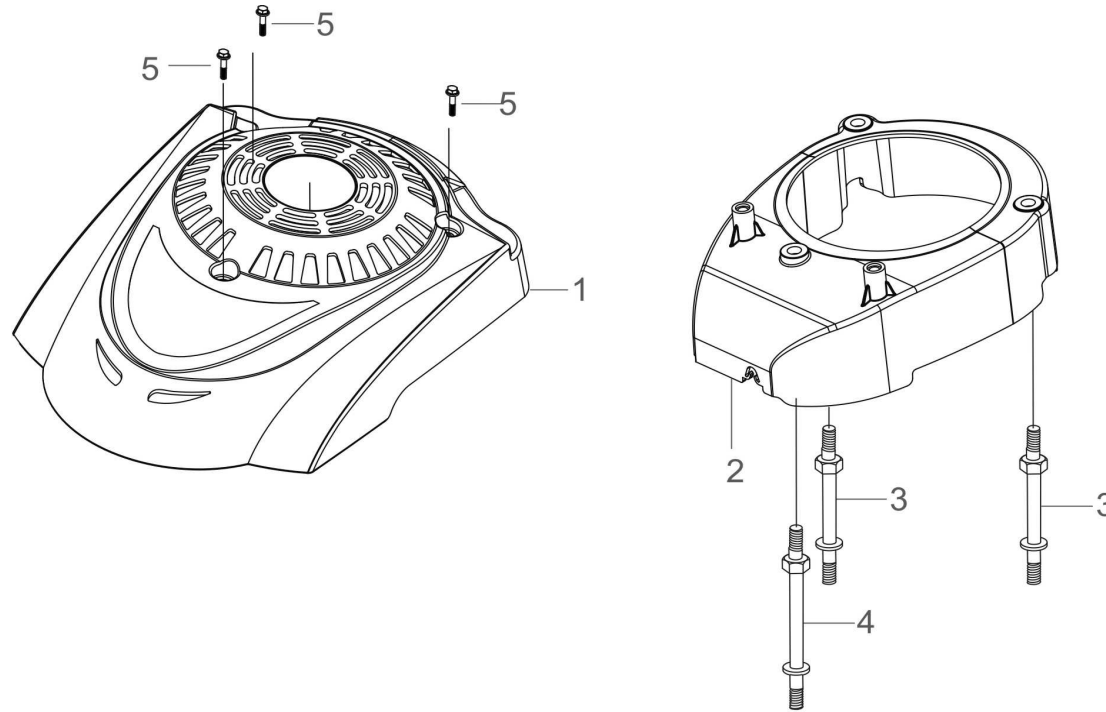
REF.NO.	DESCRIPTION	QTY	MITM	RATO
5-01	NUT-VALVE LOCK	2	45-0269	14312-Z010110-0000
5-02	NUT-VALVE ADJUSTING	2	45-0271	14314-Z010110-0000
5-03	RETAINER-VALVE SRPING	2	45-0628	12112-Z010110-0000
5-04	VALVE-ROCKER	2	45-0500	14311-Z010110-0000
5-05	VALVE-SPRING	2	N/A	12103-Z030110-0000
5-06	GUIDE-SEAL	1	45-0629	12101-Z030110-0000
5-07	BOLT-VALVE ADJUSTING	2	45-0270	14313-Z010110-0000
5-08	VALVE SET	1	45-0709	12110-Z030110-0000
5-09	LIFTER STOPPER PLATE SUBASSY	1	45-0631	14090-Z030110-0000
5-10	VALVE-LIFTER	2	45-0632	14071-Z010110-0000
5-11	VALVE-TAPPET	2	45-0633	14081-Z010110-0000
5-12	CAMSHAFT ASSY	1	45-0710	14200-Z340210-0099

FIG.6 RECOIL STARTER



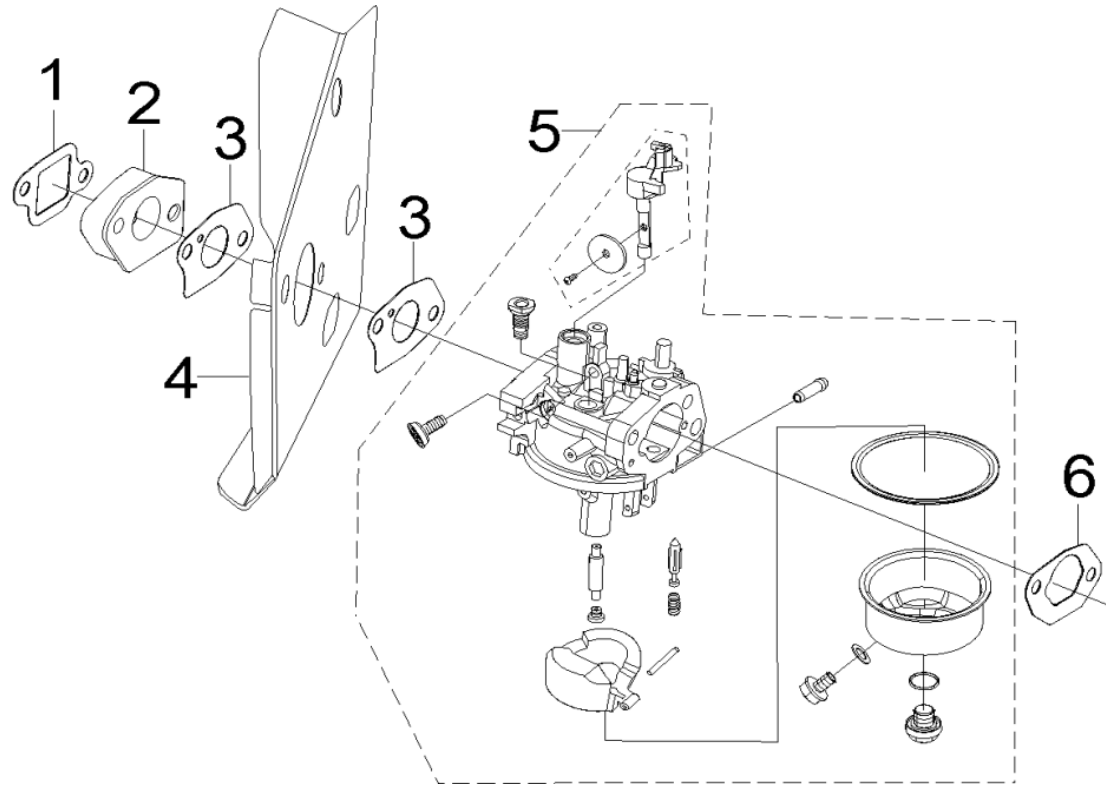
REF.NO.	DESCRIPTION	QTY	MITM	RATO
6-01	NUT	3	45-0324	90305-0600-31
6-02	RECOIL STARTER ASSY	1	45-0711	28200-Z251710-Q200

FIG.7 SHROUDS



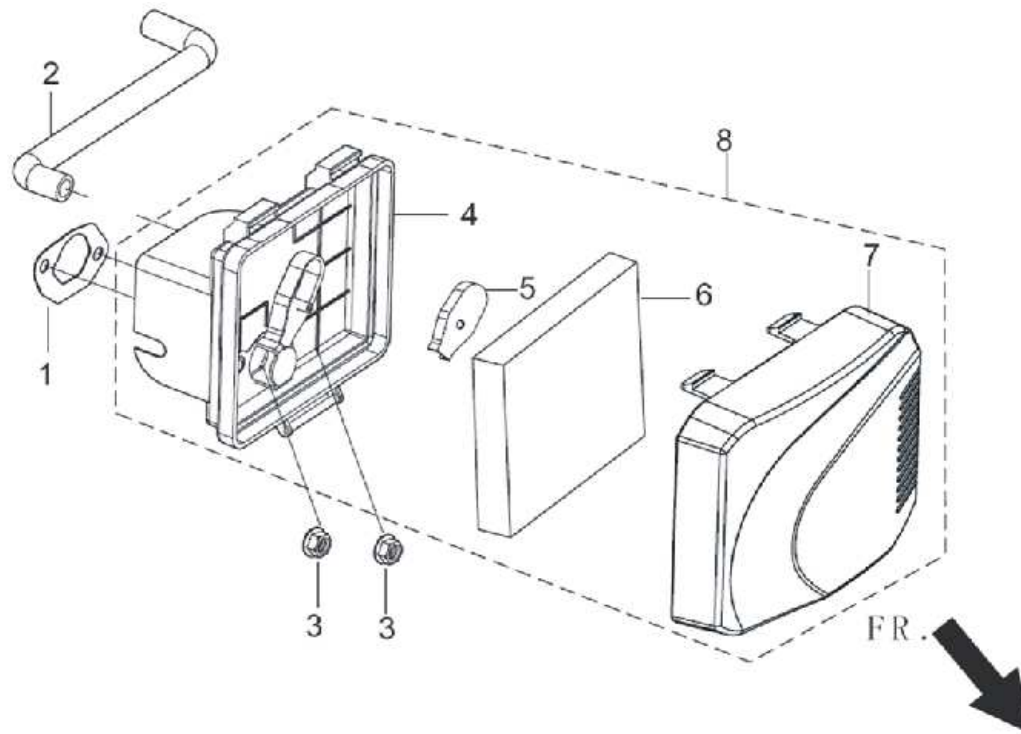
REF.NO.	DESCRIPTION	QTY	MITM	RATO
7-01	ENGINE HOUSING- 170CC	1	45-0199	80001-Z340210-Q200
7-02	SHROUD- INNER	1	45-0636	28110-Z340110-0000
7-03	STUD- SHROUD MOUNTING	2	45-0637	28001-Z340210-0000
7-04	STUD- LONG- SHROUD MOUNTING	1	45-0638	28001-Z340110-0000
7-05	BOLT-LOW OIL SHUT DOWN	3	45-0315	90001-0612-01

FIG.8 CARBURETOR ASSEMBLY



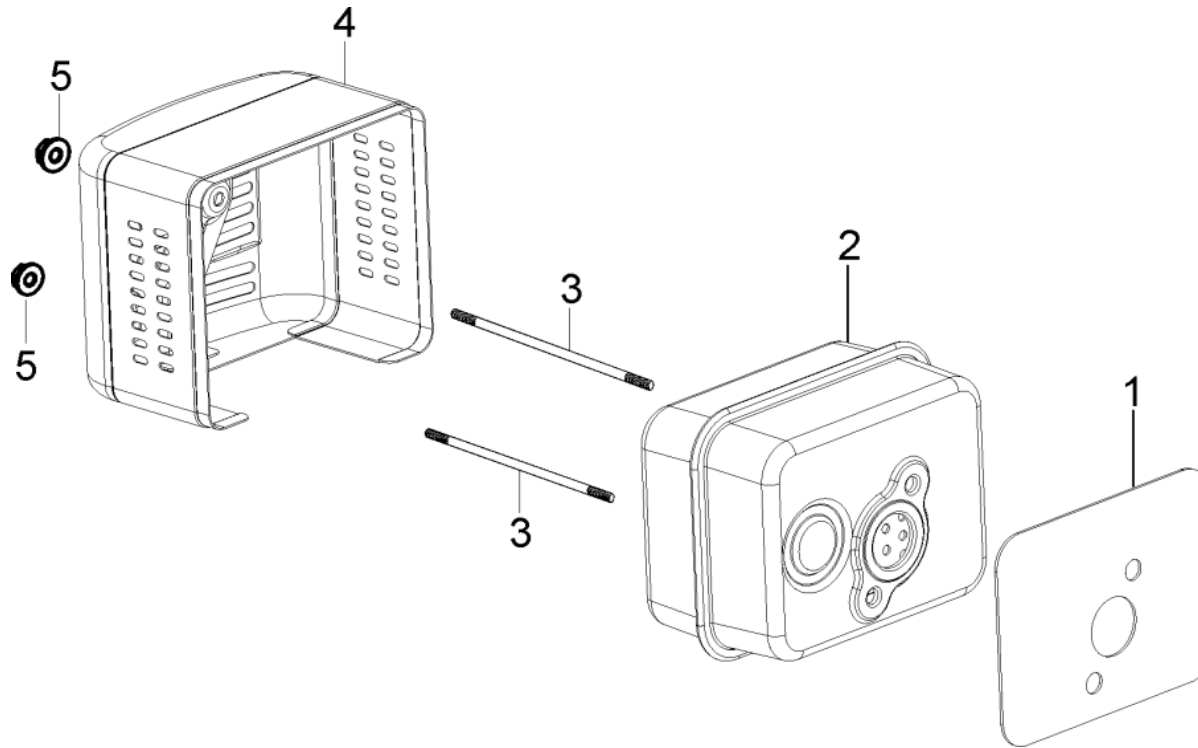
REF.NO.	DESCRIPTION	QTY	MITM	RATO
8-01	GASKET-INSULATOR PLATE	1	45-0200	16004-Z030110-0000
8-02	PLATE-CARBURETOR INSULATOR	1	45-0639	16003-Z030110-0000
8-03	GASKET-CARBURETOR	2	45-0201	16001-Z010110-0000
8-04	GASKET-CARBURETOR INSULATOR	1	45-0712	16002-Z340410-0000
8-05	CARBURETOR ASSY	1	45-0677	16100-Z340810-0099
8-06	GASKET-AIR CLEANER	1	45-0203	17001-Z030120-0000

FIG.9 AIR CLEANER



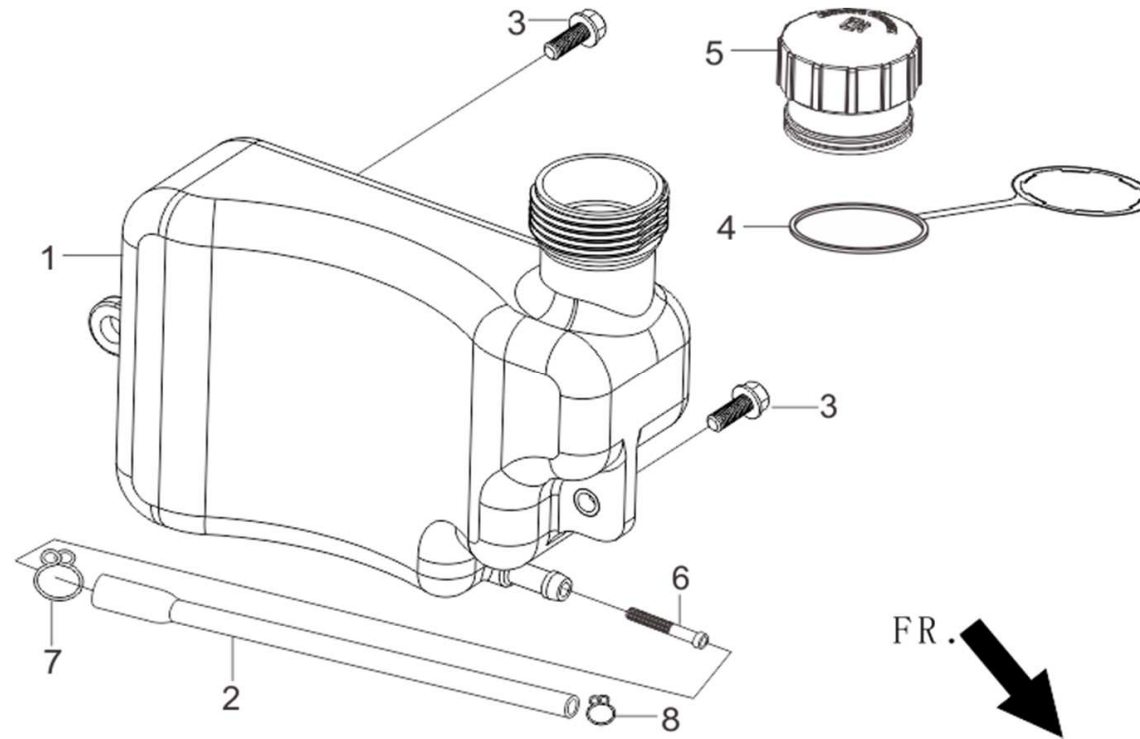
REF.NO.	DESCRIPTION	QTY	MITM	RATO
9-01	GASKET-AIR CLEANER	1	45-0203	17001-Z030120-0000
9-02	BREATHER- TUBE	1	45-0204	17004-Z030310-0000
9-03	NUT- GOVERNOR SUPPORT	2	45-0324	90305-0600-31
9-06	AIR FILTER ELEMENT- 170CC	1	45-0206	17150-Z030210-0000
9-08	AIR CLEANER ASSY	1	45-0713	17100-Z340510-0000

FIG.10 MUFFLER ASSEMBLY



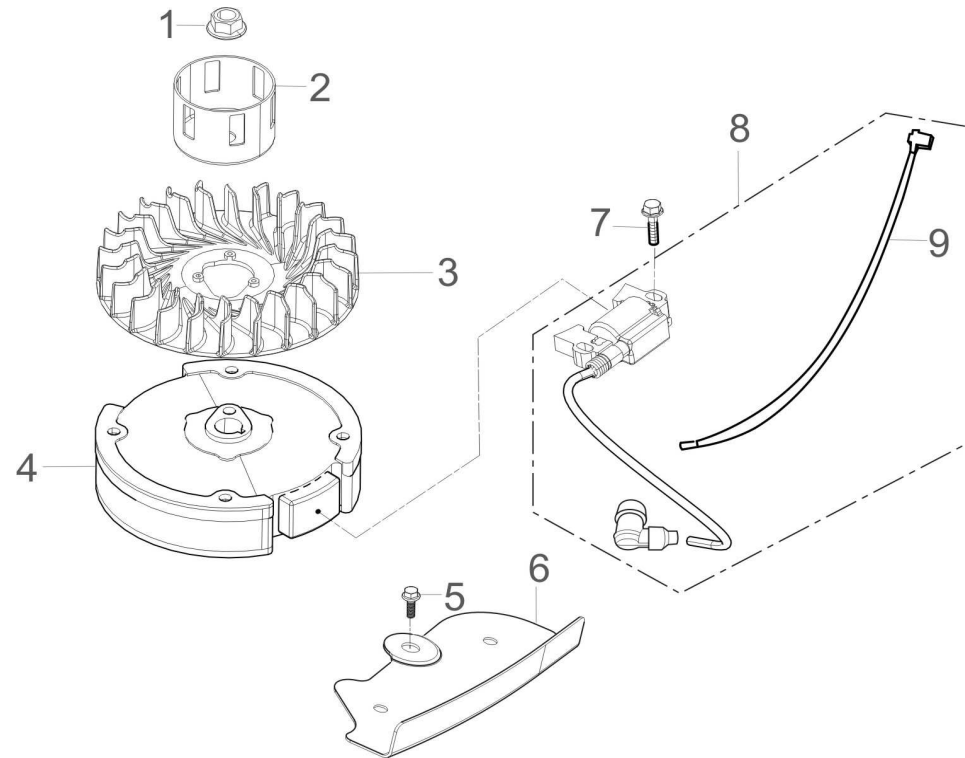
REF.NO.	DESCRIPTION	QTY	MTIM	RATO
10-01	GASKET-EXHAUST OUTLET	1	45-0682	18001-Z340210-0000
10-02	MUFFLER COVER SUBASSY	1	45-0681	18100-Z340910-QALS
10-03	STUD-MUFFLER M6x1x96.52mm OAL	2	45-0714	90204-Z250310-0031
10-04	MUFFLER COVER	1	45-0680	18130-Z340220-QA00
10-05	MUFFLER-NUT	2	45-0324	90305-0600-31

FIG.11 FUEL TANK ASSEMBLY



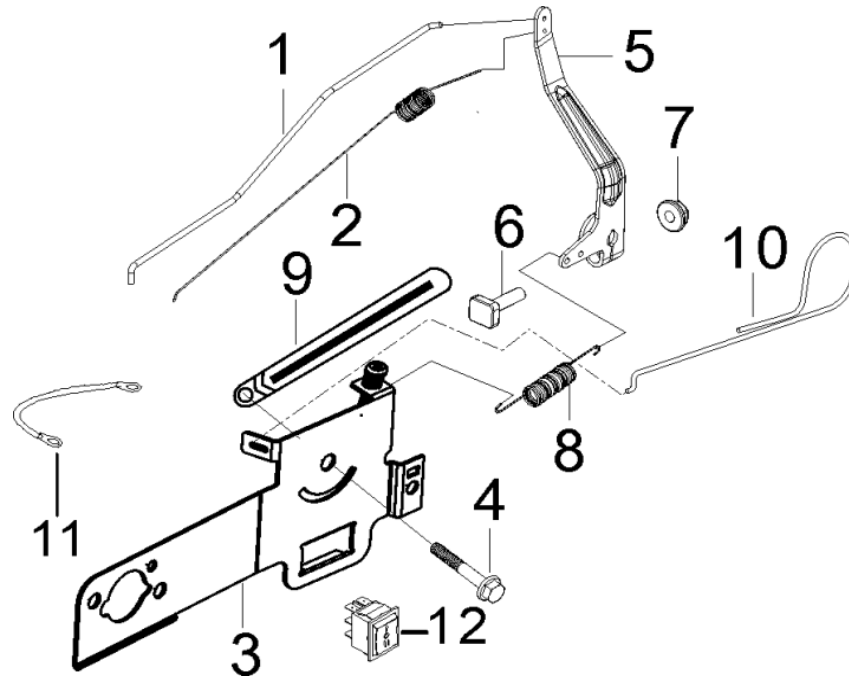
REF.NO.	DESCRIPTION	QTY	MITM	RATO
11-01	FUEL TANK - 170CC	1	45-0683	16620-Z030510-0099
11-02	TUBE-FUEL	1	45-0646	90686-Z030310-0000
11-03	BOLT-FUEL TANK	2	45-0643	90007-0614-A1
11-04	FUEL TANK CHAIN	1	45-0689	16744-Z620120-0000
11-05	FUEL TANK CAP- 170CC	1	45-0690	16730-Z620210-0000
11-06	STRAINER-FUEL	1	45-0644	16652-Z030110-0000
11-07	CLIP-HOSE	1	45-0645	90685-Z030110-0000
11-08	CLAMP	1	45-0517	90740-Z010210-0000

FIG.12 FLYWHEEL / IMPELLER / STARTER PULLEY / IGNITION COIL



REF.NO.	DESCRIPTION	QTY	MITM	RATO
12-01	NUT-FLYWHEEL	1	45-0520	13501-Z010110-0000
12-02	PULLEY-STARTER	1	45-0654	28002-Z030110-0000
12-03	IMPELLER	1	45-0655	19352-Z010110-0000
12-04	FLYWHEEL SUBASSY	1	45-0656	13510-Z340110-0000
12-05	BOLT-LOW OIL SHUT DOWN	1	45-0315	90001-0612-01
12-06	SHIELD-FUEL TANK LEFT	1	45-0715	19309-Z250110-0000
12-07	BOLT-IGNITION COIL	1	45-0657	90007-0625-A1
12-08	COIL-IGNITION	1	45-0213	30400-Z340110-0001
12-09	IGNITION COIL WIRE	1	SEE 12-08	

FIG.13 THROTTLE CONTROL ASSEMBLY



REF.NO.	DESCRIPTION	QTY	MITM	RATO
13-01	ROD-GOVERNEOR	1	45-0660	16062-Z030110-0000
13-02	SPRING-THROTTLE VALVE RETURN	1	45-0661	16012-Z030120-0000
13-03	THROTTLE CONTROL ASSY	1	45-0663	16520-Z030620-0000
13-04	BOLT-GOVERNOR PLATE	1	45-0666	90007-0628-A1
13-05	GOVERNOR SUPPORT SUBASSY	1	45-0664	16070-Z030130-0000
13-06	BOLT-GOVERNOR SUPPORT	1	45-0282	16072-Z010110-0000
13-07	NUT	1	45-0324	90305-0600-31
13-08	SPRING-GOVERNOR	1	45-0665	16063-Z030120-0000
13-09	CLIP	1	45-0335	90684-Z030120-0000
13-10	ROD-CHOKE	1	45-0662	16123-Z030220-0000
13-11	WIRE-GROUND	1	45-0659	35555-Z020110-0000
13-12	STOP ENGINE SWITCH	1	45-0212	35540-Z020110-QG00