

# ENGINE PARTS MANUAL

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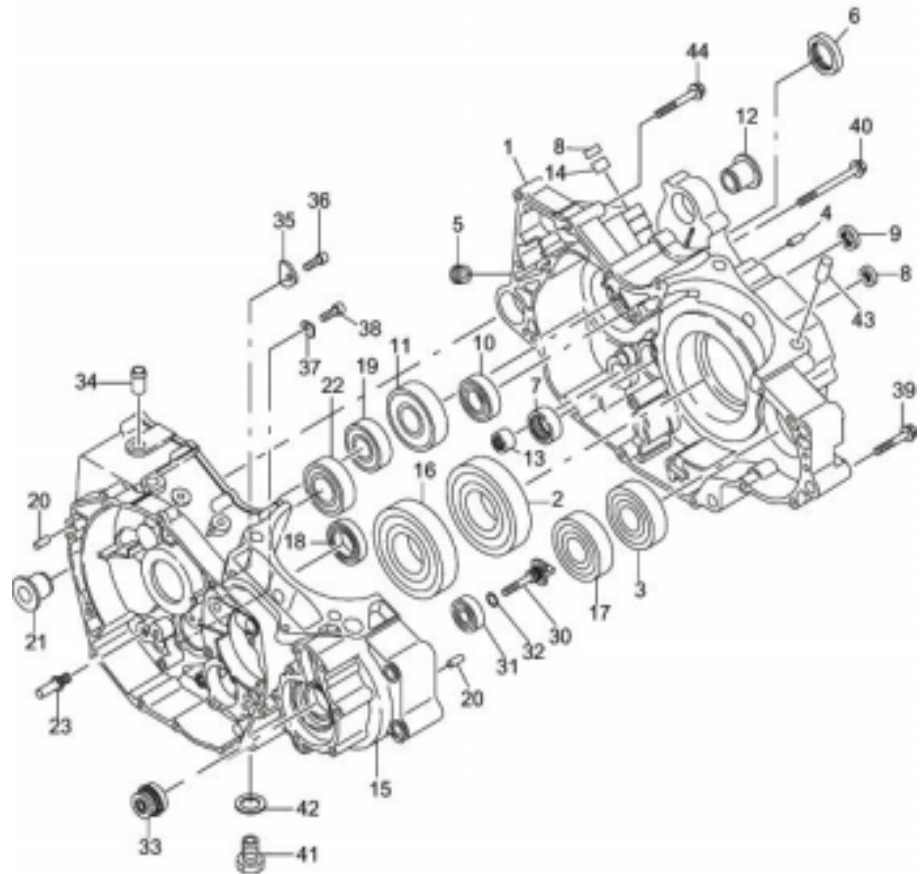
**IMPORTANT!!!**

1. The manual is subject to change without prior notice. To order parts always follow the newest version of parts manual issued by the manufacturer.
2. The column "Ref No." is for reference only. To receive your parts correctly and rapidly, please submit the "Part No." instead of "Ref No."
3. Parts without "Part No." (see 2nd column) listed on this manual will not be sold individually. An assembly to include the parts you need will be the alternative.

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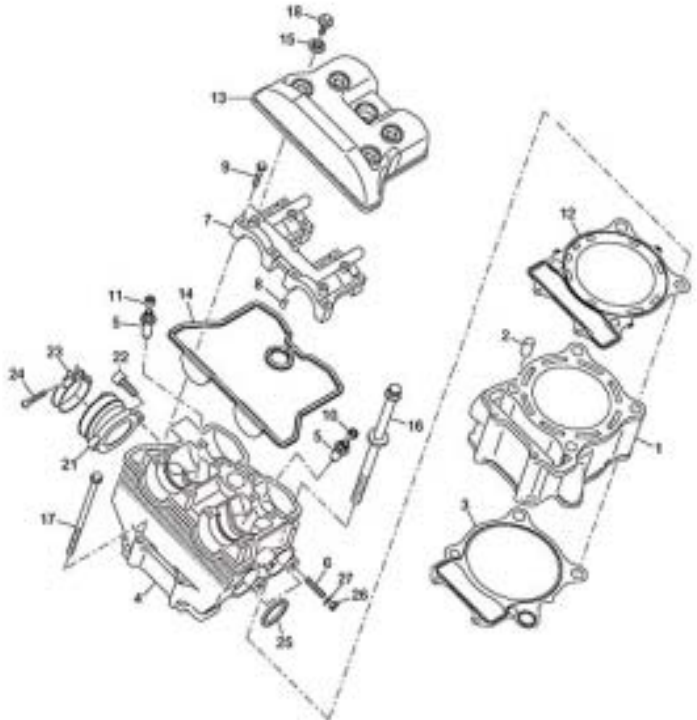
## 1. CRANKCASE

Ref No.	Part No.	Part Name	Q'ty	Remarks
*1	290 10301 00	CRANKCASE ASSY.	1	Incl. 2 23,30 40
2	060 03502 21	BALL BEARING	1	
3	060 02501 70	BALL BEARING	1	
4	031 00600 10	DOWEL PIN	2	
5	235 15421 03	BLIND PLUG	1	PT1/8
6	044 02500 70	OIL SEAL	1	
7	061 01300 00	NEEDLE BEARING	1	
8	044 01200 30	OIL SEAL	2	
9	044 01300 20	OIL SEAL	1	
10	060 02001 50	BALL BEARING	1	
11	060 02501 10	BALL BEARING	1	
12	283 16401 03	COLLAR	1	
13	061 02500 10	NEEDLE BEARING	1	
14	060 21200 10	BEARING (RELEASE)	1	
16	060 03502 21	BALL BEARING	1	
17	060 02501 70	BALL BEARING	1	
18	060 02501 20	BALL BEARING	1	
19	060 02000 20	BALL BEARING	1	
20	031 00600 10	DOWEL PIN	4	
21	283 16401 03	COLLAR	1	
22	060 02501 30	BALL BEARING	1	
23	257 88901 03	STOPPER PIN	1	
*30	283 55002 01	WATER PUMP SHAFT COMPL.	1	Incl. 31,32
31	060 01200 60	BALL BEARING	1	
32	006 26100 90	"O" RING	1	
33	257 56201 01	MECHANICAL SEAL COMPL.	1	
34	132 97KA0 60	PIPE-AIR BREATHER	1	
35	283 15503 03	STOPPER PLATE	1	
36	011 90600 90	BOLT (SOCKET HEAD)	1	M6×16mm
37	283 15504 03	STOPPER PLATE B	2	
38	011 90600 50	BOLT (SOCKET HEAD)	2	M6×12mm
39	011 00605 20	FLANGE BOLT	7	M6×40mm
40	011 00605 30	FLANGE BOLT	8	M6×75mm
41	283 69301 13	PLUG (MAGNETO)	1	
42	021 11400 20	GASKET	1	
43	031 51500 10	PIPE KNOCK	2	For M11
44	011 00605 40	FLANGE BOLT	1	M6×50mm



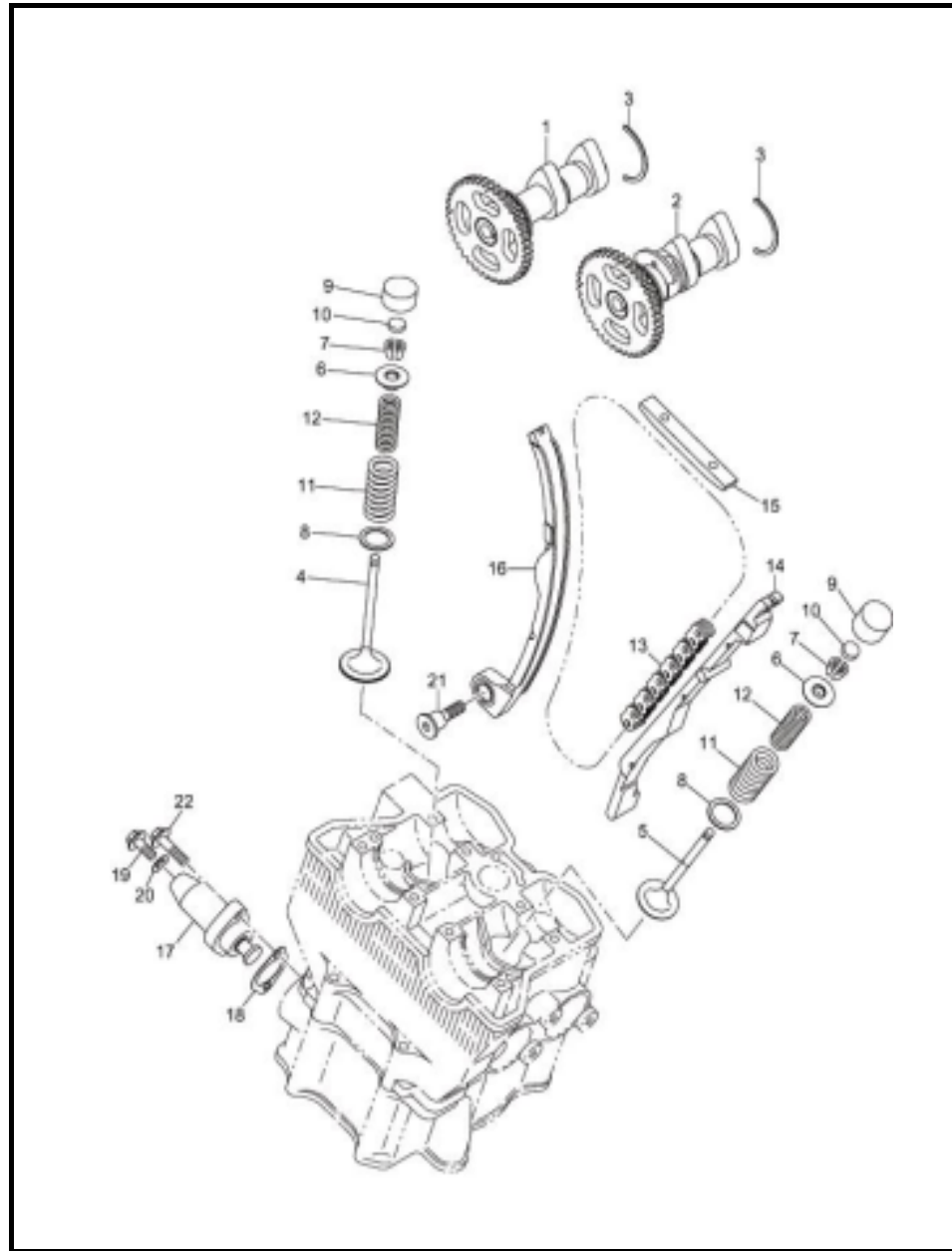
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**2. CYLINDER**

	Ref No.	Part No.	Part Name	Q'ty	Remarks
	1	290 12401 01	CYLINDER COMPL.	1	
	2	031 51500 10	PIPE KNOCK	2	For M11
	3	283 15201 13	GASKET (CYLINDER)	1	
	*4	290 13002-00	CYLINDER HEAD ASSY.	1	Incl. 5 11
	5	283 14202 03	GUIDE VALVE	4	
	6	010 50804 01	STUD	4	
	8	980 40081 10	STRAIGHT PIN	2	For M6
	9	011 00605 20	FLAGNE BOLT	8	M6×40mm
	10	283 16001 03	SEAL-VALVE	2	
	11	283 15901 03	SEAL-INTAKE VALVE	2	
	12	290 15102 01	GASKET COMPL. ( HEAD )	1	
	13	290 36301 03	HEAD COVER	1	
	14	283 36101 13	"O" RING (HEAD COVER)	1	
	15	283 36001 03	RUBBER MOUNT	4	
	16	283 16201 03	BOLT AND WASHER ASSY.	4	M11×198mm
	17	011 00604 10	FLANGE BOLT	2	M6×140mm
	18	283 36201 03	BOLT	4	M6×14mm
	21	283 65001 01	ADAPTER COMPL.	1	
	22	011 90800 20	BOLT(SOCKET HEAD)	2	M8×20mm
	*23	283 65901 00	BAND ASSY. (ADAPTER)	1	Incl. 24
	24	004 31043 00	SCREW, PANHEAD	1	M4×30mm
	25	283 36901 01	GASKET COMPL. (EXHAUST)	2	
	26	017 20800 20	NUT	4	
	27	003 20080 00	SPRING WASHER	4	



**4. INTAKE & EXHAUST**



Ref No.	Part No.	Part Name	Q'ty	Remarks
1	283 31601 01	CAMSHAFT (IN) COMPL.	1	
2	283 31602 11	CAMSHAFT (EX) COMPL.	1	
3	283 35601 03	BEARING STOPPER	2	
4	287 33401 03	INTAKE VALVE	2	
5	287 33501 03	EXHAUST VALVE	2	
6	283 33701 03	SPRING RETAINER	4	
7	132 10AA0 20	COLLET-VALVE	8	
8	283 35701 03	SEAT (VALVE SPRING)	4	
9	283 35801 03	VALVE LIFTER	4	
10	283 35901 03	ADJUSTING PAD	4	T=1.450
10	283 35902 03	ADJUSTING PAD	4	T=1.500
10	283 35903 03	ADJUSTING PAD	4	T=1.550
10	283 35904 03	ADJUSTING PAD	4	T=1.600
10	283 35905 03	ADJUSTING PAD	4	T=1.625
10	283 35906 03	ADJUSTING PAD	4	T=1.650
10	283 35907 03	ADJUSTING PAD	4	T=1.675
10	283 35908 03	ADJUSTING PAD	4	T=1.700
10	283 35909 03	ADJUSTING PAD	4	T=1.725
10	283 35910 03	ADJUSTING PAD	4	T=1.750
10	283 35911 03	ADJUSTING PAD	4	T=1.775
10	283 35912 03	ADJUSTING PAD	4	T=1.800
10	283 35913 03	ADJUSTING PAD	4	T=1.825
10	283 35914 03	ADJUSTING PAD	4	T=1.850
10	283 35915 03	ADJUSTING PAD	4	T=1.875
10	283 35916 03	ADJUSTING PAD	4	T=1.900
10	283 35917 03	ADJUSTING PAD	4	T=1.925
10	283 35918 03	ADJUSTING PAD	4	T=1.950
10	283 35919 03	ADJUSTING PAD	4	T=1.975
10	283 35920 03	ADJUSTING PAD	4	T=2.000
10	283 35921 03	ADJUSTING PAD	4	T=2.025
10	283 35922 03	ADJUSTING PAD	4	T=2.050
10	283 35923 03	ADJUSTING PAD	4	T=2.075
10	283 35924 03	ADJUSTING PAD	4	T=2.100
10	283 35925 03	ADJUSTING PAD	4	T=2.125
10	283 35926 03	ADJUSTING PAD	4	T=2.150
10	283 35927 03	ADJUSTING PAD	4	T=2.200
10	283 35928 03	ADJUSTING PAD	4	T=2.250
10	283 35929 03	ADJUSTING PAD	4	T=2.300













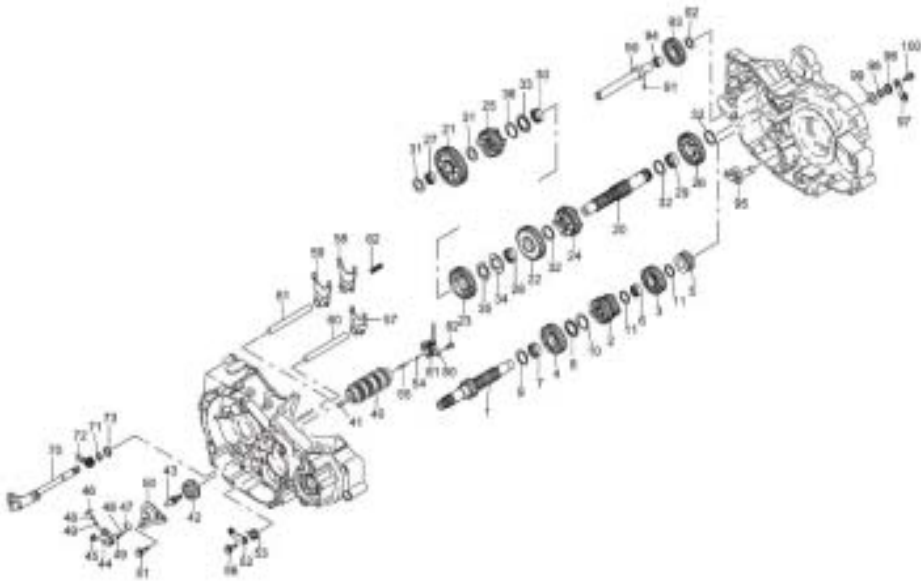






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**13. CLUTCH (No.2)**

	Ref No.	Part No.	Part Name	Q'ty	Remarks
	*1	283 86202 00	MAIN SHAFT ASSY.	1	Incl. 1 11
	1	283 86202 01	MAIN SHAFT COMPL.	1	
	2	283 82208 03	GEAR (2ND,3RD DRIVE)	1	
	3	283 82212 03	GEAR (4TH DRIVE)	1	
	4	283 82213 03	GEAR (5TH DRIVE)	1	
	5	283 82211 03	REVERSE GEAR (DRIVE)	1	
	6	283 86406 03	COLLAR	1	
	7	283 86405 03	COLLAR	1	
	8	283 86701 03	SPLINE WASHER	1	
	9	283 86802 03	WASHER	1	
	10	283 86901 03	CLIP	1	
	11	283 86804 03	WASHER	2	
	*20	283 87002 00	COUNTER SHAFT ASSY.	1	Incl. 20 36
	20	283 87002 01	COUNTER SHAFT COMPL.	1	
	21	283 82106 03	GEAR (1ST DRIVEN)	1	
	22	283 82107 03	GEAR (2ND DRIVEN)	1	
	23	283 82108 03	GEAR (3RD DRIVEN)	1	
	24	283 82109 03	GEAR (4TH DRIVEN)	1	
	25	283 82110 03	GEAR (5TH DRIVEN)	1	
	26	283 82111 03	REVERSE GEAR (DRIVEN)	1	
	27	283 86403 03	COLLAR	1	
	28	283 86409 03	COLLAR	1	
	29	283 86405 03	COLLAR	1	
	30	283 86407 03	COLLAR (SPLINE)	1	
	31	283 86803 03	WASHER	2	
	32	283 87402 03	WASHER	3	
	33	283 86701 03	SPLINE WASHER	1	
	34	283 86801 03	WASHER	1	
	35	283 86702 03	LOCK WASHER	1	
	36	283 86901 03	CLIP	1	
	*40	283 87602 01	SHIFT DRUM COMPL.	1	Incl. 41
	41	283 87801 03	DOWEL PIN	1	
	42	283 87702 03	SHIFT CAM	1	
	43	283 8B001 03	SHIFTER PIN	1	
	44	283 8B102 03	DRUM SHIFTER	1	
	45	283 8B201 03	SHIFTER COLLAR	1	

**13. CLUTCH (No.2)**

Ref No.	Part No.	Part Name	Q'ty	Remarks
46	283 8B301 03	RATCHET PAWL A	1	
47	283 8B401 03	RATCHET PAWL B	1	
48	283 8B501 03	PAWL PLUNGER	2	
49	283 8B601 03	SPRING (PLUNGER)	2	
50	283 8B701 03	GUIDE PLATE	1	
51	011 00604 70	FLANGE BOLT	2	M6×20mm
52	283 8C301 01	STOPPER ARM COMPL.	1	
53	283 88005 13	SPRING (STOPPER)	1	
54	283 88101 03	POINT (NEUTRAL)	1	
55	283 88201 03	SPRING (POINT)	1	
56	283 89906 03	BOLT (STOPPER)	1	
57	283 88410 03	SHIFT FORK (MAIN)	1	
58	283 88411 03	SHIFT FORK (LEFT)	1	
59	283 88412 03	SHIFT FORK (RIGHT)	1	
60	283 88505 03	FORK SHAFT	1	
61	283 88506 03	FORK SHAFT	1	
62	283 88601 03	SPRING (FORKSHAFT)	1	
70	283 8C002 01	SHIFT SHAFT COMPL.	1	Incl. 71,72
71	283 86902 03	SNAP RING	1	
72	283 8C201 03	RETURN SPRING	1	
73	283 86807 03	WASHER	1	
*80	283 89304 00	SWITCH (POSITION) ASSY.	1	Incl. 81
81	024 02100 10	"O" RING	1	
82	013 10500 30	SCREW AND WASHER ASSY.	2	M5×20mm
*90	283 8A001 01	REVERSE SHAFT COMPL.	1	Incl. 91 94
91	283 87801 03	DOWEL PIN	1	
92	283 86805 03	WASHER	1	
93	283 8A101 03	REVERSE IDELE GEAR	1	
94	283 86408 03	COLLAR	1	
95	283 8A201 01	REVERSE ARM COMPL.	1	
96	283 8A401 03	REVERSE ARM SPRING	1	
97	283 8A301 03	REVERSE ARM LEVER	1	
98	003 15120 00	SNAP RING	1	
99	283 86806 03	WASHER	1	
100	011 00604 40	FLANGE BOLT	1	M6×12mm

