

DAYTONA

ANIMA 150F ENGINE

Owner's Manual

ANIMA 150F
---Four-Valve Head Engine---

ENGLISH MANUAL SECTION

Page 2 - 25

PARTS CATALOGUE SECTION

Page 26 - 36

CATALOGUE DES PIECES DATAHEES

Page 26 - 36



DAYTONA corp.

ANIMA 150f ENGINE

Owner's Manual



INTRODUCTION

Thank you for purchasing of a ANIMA 150f Engine.

This manual explains operation, inspection, basic maintenance and tuning of the engine.

If you have any questions, please contact the dealer you purchased the engine/bike from.

Please read this manual very carefully before use.



WARNING

1. ANIMA 150f ENGINE is designed strictly FOR COMPETITION USE, ONLY ON A CLOSED COURSE. It is illegal to use this engine on any public road or highway. Off-road use on public space is also illegal.
Please check local regulation before use.
2. This engine is to be used by EXPERIENCED RIDERS ONLY.
Fatal accident may be caused unless it is used by experienced riders or maintained by professional and experienced mechanics.
3. This engine is to be maintained by professional and experienced mechanics.
Serious damage may occur, otherwise.
4. This manual explains ONLY THE BASIC operation, inspection, maintenance and tuning, but it is customer's responsibility to maintain the engine to the best possible performance, depending on the circumstances of the time.

ANIMA 150f ENGINE

Owner's Manual

CUSTOMER'S RESPONSIBILITY & CUSTOMER SERVICE

GENERAL EXCLUSIONS

Any failures caused by the following reasons are NOT considered as the defects of Products.

- (1) Overheating due to improper engine oil temp. control



WARNING

ENGINE OIL TEMPERATURE MUST BE CONTROLLED AT 90 DEGREES CELSIUS (194 DEGREES FAHRENHEIT) OR LOWER.

Serious damage will occur in the engine if engine oil temperature exceeds 90 degrees Celsius or 194 degrees Fahrenheit.

It is solely customer's responsibility to control the engine oil temperature.

- (2) Installation of parts or accessories that is not originally equipped on Products.
This includes DAYTONA UPGRADE KIT PARTS as well, since those are designed for the top competition riders.
- (3) Abnormal strain, neglect, or abuse
- (4) Accident or collision damage
- (5) Modification to original parts
- (6) Lack of proper maintenance
- (7) Damage due to improper transportation or use

THE CUSTOMER'S RESPONSIBILITY

THE CUSTOMER'S RESPONSIBILITY shall be :

- (1) Operate and maintain Products as specified in the appropriate Owner's Manual

CUSTOMER SERVICE

If Products require services, you must take it to the authorized dealer, who is appointed by authorized local distributors of DAYTONA.

DAYTONA Corp. JAPAN is NOT in the position to take care of services of any kind with the customers or authorized dealers due to the contract with authorized local distributors.

ANIMA 150f ENGINE

Owner's Manual

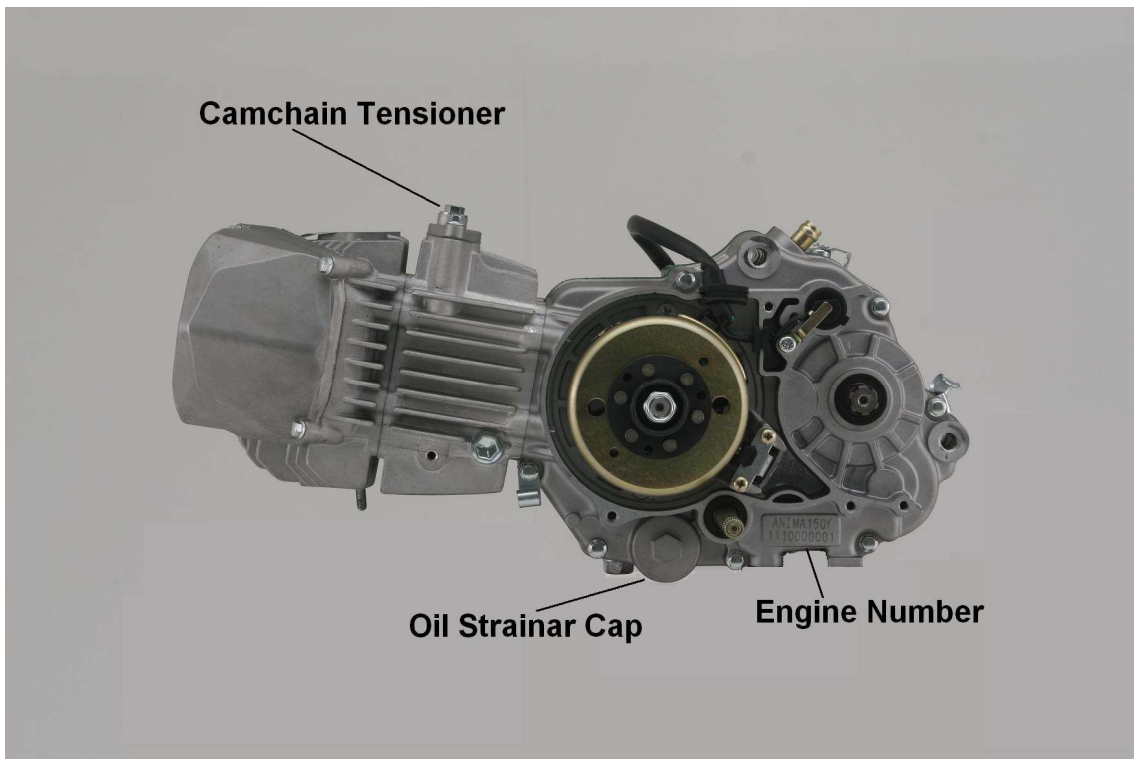
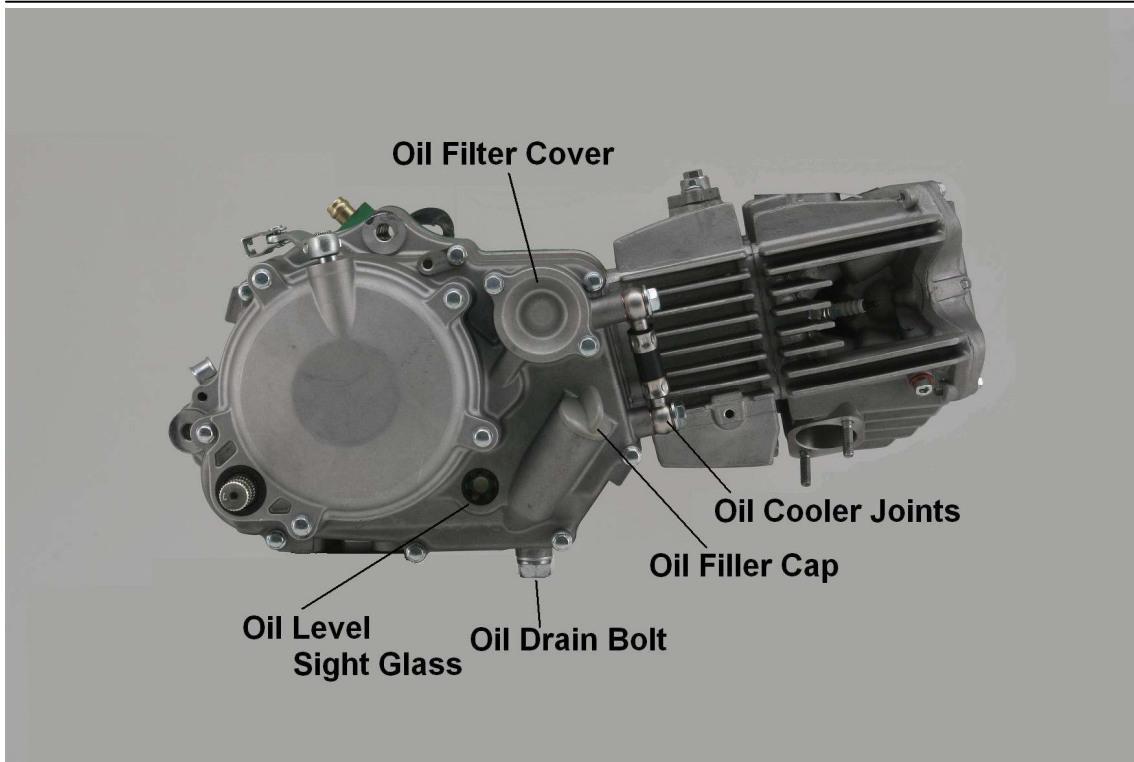
CONTENTS

| | |
|--|--------------|
| INTRODUCTION | Page 2 |
| CUSTOMER'S RESPONSIBILITY & CUSTOMER SERVICE | Page 3 |
| CONTENTS | Page 4 |
| PART NAMES | Page 5 |
| GENERAL SPECIFICATIONS | Page 6 |
| MAINTENANCE SPECIFICATIONS | Page 7 – 10 |
| MAINTENANCE INTERVALS | Page 11 - 13 |
| PRE-OPERATION INSPECTION AND MAINTENANCE | Page 14 |
| ENGINE OIL LEVEL INSPECTION | Page 14 |
| CARBURETOR SETTING | Page 15 - 17 |
| IGNITION TIMING SELECTION | Page 18 |
| REV LIMITER SELECTION | Page 19 |
| ENGINE OIL TEMPERATURE CONTROL | Page 20 |
| ELECTRICAL DIAGRAM | Page 21 |
| OPTIONAL PARTS | Page 22 - 25 |
| PARTS CATALOGUE | Page 26 – 36 |

ANIMA 150f ENGINE

Owner's Manual

PART NAMES



ANIMA 150f ENGINE

Owner's Manual

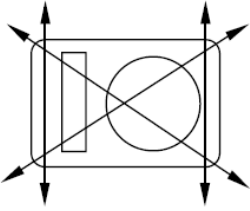
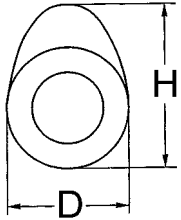
GENERAL SPECIFICATIONS

| | |
|-----------------------------|--|
| ENGINE | |
| Engine Weight (Dry) | 21.5 kg |
| Engine type | Air Cooled 4-stroke SOHC |
| Cylinder arrangement | Single cylinder, Horizontally mounted |
| Displacement (ANIMA150f) | 149.74 cm ³ |
| Bore × stroke (ANIMA150f) | 62.0 × 49.6 mm (2.441 × 1.953 in) |
| Compression ratio | 12.1 : 1 |
| Starting system | Kick (Kick pedal is NOT included in the Engine Kit) |
| Lubrication system | Wet sump |
| Recommended Engine Oil | SAE 10W-40 or higher grade API "SG" or higher grade |
| Engine oil capacity | |
| Periodic oil change | 0.60 L |
| With oil filter replacement | 0.65 L |
| Total amount | 0.70 L |
| | * Need more amount of oil when oil cooler is in use |
| Spark plug | |
| Type/manufacturer | ER9EH / NGK (resistance type) |
| Gap | 0.6 ~ 0.7 mm (0.024 ~ 0.028 in) |
| Clutch type | Wet, Multi-plate 6-disc |
| Transmission | |
| Primary reduction system | Gear |
| Primary reduction ratio | 67/18 (3.722) |
| Transmission type | 4-Speed |
| Gear ratio | (Counter / Main) |
| 1st | 34/13 (2.6153) |
| 2nd | 26/15 (1.7333) |
| 3rd | 25/21 (1.1904) |
| 4 th | 22/24 (0.9166) |
| GEAR SHIFT PATTERN | N-1-2-3-4 |
| Electrical | |
| Ignition system | AC-CDI |
| Generator system | AC magneto |

ANIMA 150f ENGINE

Owner's Manual

MAINTENANCE SPECIFICATIONS

| Item | Standard | Limit |
|--|--|---|
| Cylinder head Warp limit  | ---- | 0.05 mm (0.002 in) |
| Cylinder: Bore size Out of round limit | 62.00 - 62.015mm (2.4409 – 2.4415) ---- | ---- 0.05 mm (0.002 in) |
| Camshaft: Drive method Cam dimensions  | Chain drive (Left) | ---- |
| Intake | “H” 30.18 ~ 30.30 mm (1.1882 ~ 1.1929 in) “D” ---- ---- | 29.84 mm (1.1748 in) ---- ---- |
| Exhaust | “H” 30.21 ~ 30.33 mm (1.1894 ~ 1.1941 in) “D” ---- ---- | 29.87 mm (1.1760 in) ---- ---- |

ANIMA 150f ENGINE

Owner's Manual

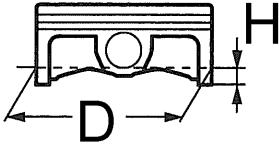
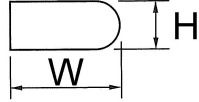
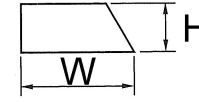
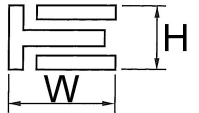
MAINTENANCE SPECIFICATIONS

| Item | Standard | Limit |
|--|--|---------------------|
| Timing chain: Timing chain No. of links Timing chain adjustment method | 94 link Automatic | ---- ---- |
| Valve, valve seat, valve guide: Valve clearance (cold) IN EX | 0.05 ~ 0.07 mm (0.0020~ 0.0028 in) 0.05 ~ 0.07 mm (0.0020~ 0.0028 in) | ---- ---- |
| Valve dimensions: | | |
| | | |
| “A” head diameter IN | 24.4 ~ 24.6 mm (0.9606 ~ 0.9685 in) | ---- |
| EX | 20.9 ~ 21.1 mm (0.8228 ~ 0.8307 in) | ---- |
| “B” face width IN | --- | ---- |
| EX | --- | ---- |
| “C” seat width IN | 0.8 ~ 1.0 mm (0.0314 ~ 0.03937 in) | 1.6 mm (0.0630 in) |
| EX | 0.8 ~ 1.0 mm (0.0314 ~ 0.03937 in) | 1.6 mm (0.0630 in) |
| “D” margin thickness IN | ---- | ---- |
| EX | ---- | ---- |
| Stem outside diameter IN | 4.470 ~ 4.485 mm(0.17598 ~ 0.1766 in) | 4.42 mm (0.1740 in) |
| EX | 4.470 ~ 4.485 mm(0.17598 ~ 0.1766 in) | 4.42 mm (0.1740 in) |
| Guide inside diameter IN | 4.500 ~ 4.512 mm(0.17716 ~ 0.1776 in) | 4.55 mm(0.1791 in) |
| EX | 4.500 ~ 4.512 mm(0.17716 ~ 0.1776 in) | 4.55 mm(0.1791 in) |
| Stem-to-guide clearance IN | 0.015 ~ 0.042 mm(0.0005 ~ 0.0016 in) | 0.08 mm(0.003 in) |
| EX | 0.03 ~ 0.057 mm(0.0011 ~ 0.0022 in) | 0.10 mm(0.004 in) |
| Valve spring: Free length | | |
| IN (φ 16.2) | 42.59 mm(1.6767 in) | 40.38 mm(1.5897 in) |
| EX (φ 16.2) | 42.59 mm(1.6767 in) | 40.38 mm(1.5897 in) |

ANIMA 150f ENGINE

Owner's Manual

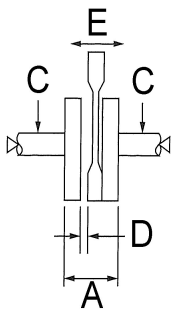
MAINTENANCE SPECIFICATIONS

| Item | Standard | Limit |
|--|--|---|
| Piston: Piston to cylinder clearance <div style="text-align: center;"> Piston size "D"  </div> <div style="text-align: center;"> Measuring point "H" Piston off-set Piston pin bore inside diameter Piston pin outside diameter </div> | 0.01 ~ 0.04 mm (0.00039 ~ 0.00157in) 61.975 ~ 61.99 mm (2.4399 ~ 2.4405 in) 8 mm (0.31 in) ---- 14.002 ~ 14.013 mm (0.5513 ~ 0.5517 in) 13.995 ~ 13.998 mm (0.5510 ~ 0.5511 in) | 0.1mm(0.004 in) ---- 14.06 mm (0.5535 in) 13.97 mm (0.55 in) |
| Piston rings: <div style="text-align: center;">  </div> Top ring: Dimensions (H × W) End gap (installed) Side clearance (installed) <div style="text-align: center;">  </div> 2nd ring: Dimensions (H × W) End gap (installed) Side clearance <div style="text-align: center;">  </div> Oil ring: Dimensions (H × W) End gap (installed) | 0.8 × 2.25 mm (0.06 × 0.09 in) 0.05 ~ 0.20 mm (0.006 ~ 0.010 in) 0.015 ~ 0.045 mm(0.0012 ~ 0.0026in) 0.8 × 2.25 mm (0.06 × 0.09 in) 0.05 ~ 0.20 mm (0.006 ~ 0.010 in) 0.015 ~ 0.045 mm(0.0012 ~ 0.0026in) | 0.4 mm (0.020 in) 0.10 mm (0.005 in) 0.4 mm (0.031 in) 0.10 mm (0.005 in) ---- 0.9 mm (0.005 in) |

ANIMA 150f ENGINE

Owner's Manual

MAINTENANCE SPECIFICATIONS

| Item | Standard | Limit |
|--|---|---|
| Crankshaft: Crank width "A" Runout limit "C" Big end side clearance "D" Small end free play "E"  | 42.2 mm (1.66142 in) 0.03 (one-side) 0.1 ~ 0.35 mm (0.0039 ~ 0.0137 in) ---- | ---- 0.1 mm (0.0039 in) 0.6 mm (0.0236 in) ---- |
| Clutch: Friction plate thickness Quantity Clutch plate thickness Quantity Warp limit Clutch spring free length Quantity | 2.9 ~ 3.1 mm (0.114 ~ 0.122 in) 6 0.9 ~ 1.0 mm (0.043 ~ 0.051 in) 5 ---- ---- 4 | 2.7 mm (0.106 in) ---- 0.7 mm (0.0275 in) ---- 0.2 mm (0.0787 in) ---- ---- |

ANIMA 150f ENGINE

Owner's Manual

MAINTENANCE INTERVALS

| Item | After break-in (50km) | Every race | Every third (or 500 km) | Every fifth (or 1,000 km) | As required | Remarks |
|---|-----------------------|------------|-------------------------|---------------------------|-------------|---|
| ENGINE OIL Replace Inspect | ● | ● | | | ● | |
| ENGINE VALVES Check the valve clearances Inspect Replace | ● | | ● ● | | ● | The engine must be cold. Check the valve seats and valve stems for wear. |
| VALVE SPRINGS Inspect Replace | | | ● | | ● | Check the free length and the tilt. |
| CAMSHAFTS Inspect Replace | | | ● | | ● | Inspect the camshaft surface. |
| TIMING CHAIN SPROCKETS, TIMING CHAIN Inspect Replace | | | ● | | ● | Check for wear on the teeth and for damage. |
| PISTON Inspect Clean Replace | | | ● | | ● ● ● | Inspect crack Inspect carbon deposits and eliminate them. |

ANIMA 150f ENGINE

Owner's Manual

MAINTENANCE INTERVALS

| Item | After break-in (50km) | Every race | Every third (or 500 km) | Every fifth (or 1,000 km) | As required | Remarks |
|--|-----------------------|------------|-------------------------|---------------------------|-------------|--|
| PISTON RING Inspect Replace | | | ● ● | | ● | Check ring end gap |
| PISTON PIN Inspect Replace | | | ● | | ● | |
| CYLINDER HEAD Inspect and clean Replace | | | ● | | ● | Inspect carbon deposits and eliminate them. Change gasket |
| CYLINDER Inspect and clean Replace | | | ● | | ● | Inspect score marks Inspect wear |
| CLUTCH Inspect and adjust Replace | ● | ● | | | ● | Inspect housing, friction plate, clutch plate and spring |
| TRANSMISSION Inspect Replace | | | | ● | ● | Inspect wear of gear and bearings |
| SHIFT FORK, SHIFT CAM, GUIDE BAR Inspect Replace | | | | ● | ● | Inspect wear |
| ROTOR NUT Retighten | ● | | | ● | | |
| CRANK Inspect and align | | | | ● | ● | |
| CARBURETOR Inspect, adjust, clean | ● | ● | | | | |

ANIMA 150f ENGINE

Owner's Manual

MAINTENANCE INTERVALS

| Item | After break- in (50km) | Every race | Every third (or 500 km) | Every fifth (or 1,000 km) | As requir e-ed | Remarks |
|---|---------------------------------|---------------|----------------------------------|------------------------------------|----------------------|--|
| SPARK PLUG Inspect and clean Replace | ● | | ● | | ● | |
| OIL COOLING SYSTEM(Optional) Check hoses & leakage Replace hoses and gaskets | ● | ● | | | ● | |
| AIR FILTER (Option) Clean and lubricate Replace | ● | ● | | | ● | Use foam air-filter oil or equivalent oil |
| OIL FILTER Replace | ● | ● | | | | |
| OIL STRAINER Clean | | | | ● | | |

ANIMA 150f ENGINE

Owner's Manual

PRE-OPERATION INSPECTION AND MAINTENANCE

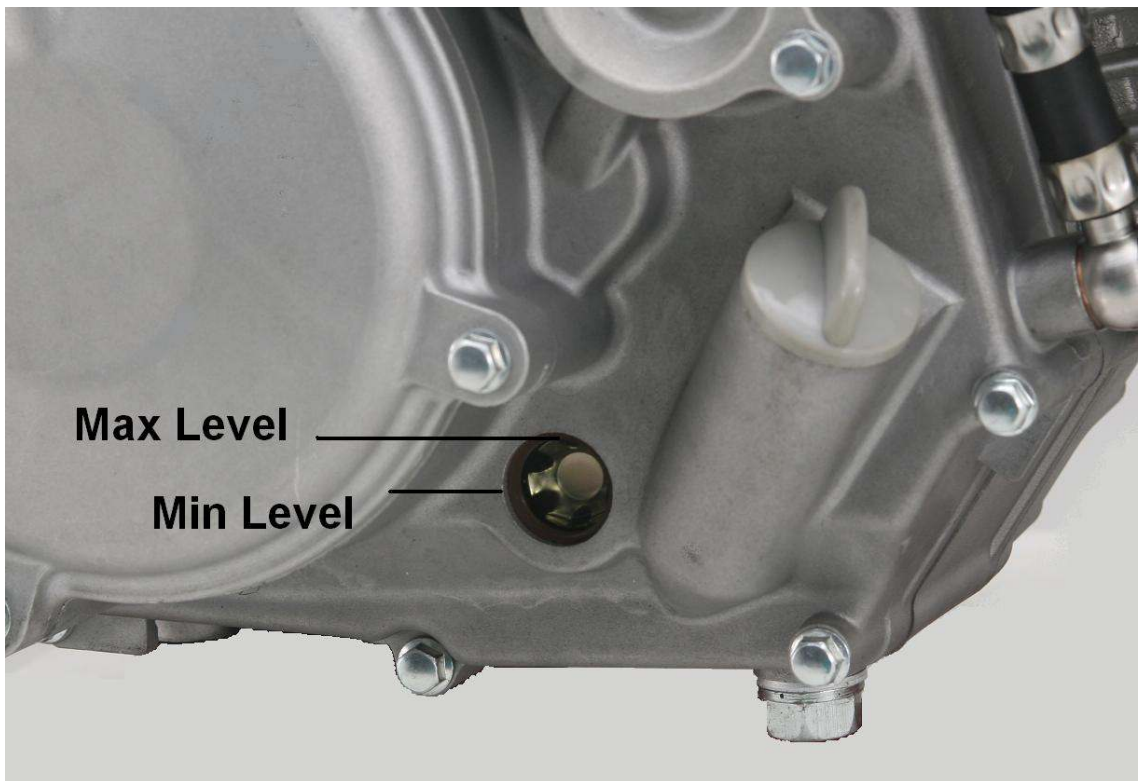
Before riding for break-in operation, practice or a race, make sure the engine is in good operating condition.

Before using this engine, check the following points.

ENGINE OIL LEVEL INSPECTION

1. Start the engine, warm it up for several minutes, and then turn off the engine and wait for a few minutes.
2. Place the bike on a level place and hold it up on upright position.
3. Check the oil level through the sight glass.

Oil level should be between the upper and the central point of the sight glass.



4. Add oil to proper level



WARNING

Add oil as necessary, when install the oil cooler.

ANIMA 150f ENGINE

Owner's Manual

PRE-OPERATION INSPECTION AND MAINTENANCE

CARBURETOR SETTING

The carburetor is extremely sensitive to foreign matter (dirt, sand, water, etc.).

During installation, do not allow foreign matter to get into the carburetor.

Always handle the carburetor and its components carefully. Even slight scratches, bends or damage to carburetor parts may prevent the carburetor from functioning correctly.

Carefully perform all servicing with the appropriate tools and without applying excessive force.

After installing the carburetor, check that the throttle operates correctly and opens and closes smoothly.

It is highly recommended that the carburetor setting is performed by an experienced mechanic to obtain the best possible performance.

Atmospheric conditions and carburetor settings

| Air Temp. | Humidity | Air Pressure (Altitude) | Mixture | Setting |
|-----------|----------|----------------------------|---------|---------|
| High | High | Low (High) | Richer | Leaner |
| Low | Low | High (Low) | Leaner | Richer |

The air density (i.e., concentration of oxygen in the air) determines the richness or leanness of the air/fuel mixture. Therefore, refer to the above table for mixture settings.

That is:

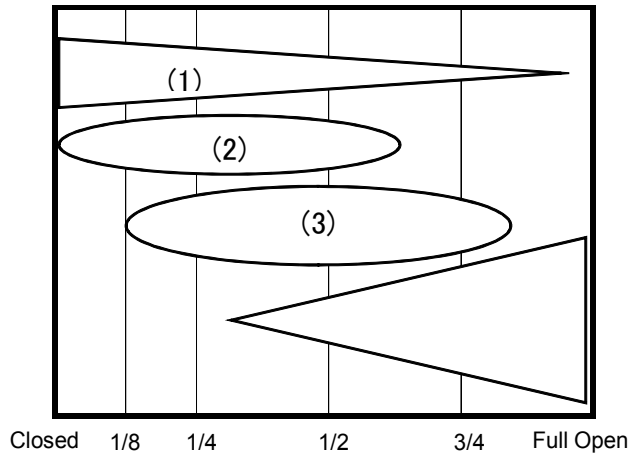
- Higher temperature expands the air with its resultant reduced density.
- Higher humidity reduces the amount of oxygen in the air by so much of the water vapor in the same air.
- Lower atmospheric pressure (at a high altitude) reduces the density of the air.

ANIMA 150f ENGINE

Owner's Manual

PRE-OPERATION INSPECTION AND MAINTENANCE

Effects of the setting parts on the throttle valve opening



- (1) Slow Jet / Pilot Screw
- (2) Throttle valve cutaway
- (3) Jet Needle / Needle Jet
- (4) Main Jet

Here is the recommended setting information of KEIHIN PWK33 and PE28 carburetor, for your reference.

Tested Conditions

| | |
|----------------------|--------------------|
| Carburetor | KEIHIN PWK33 |
| Air Temperature | 20 degrees Celsius |
| Humidity | 50% |
| Atmospheric Pressure | 1000 hPa |

| Item | Recommendation |
|----------------|---|
| Main Jet | #120-#125(without UNI Air Filter) |
| Slow Jet | #42 |
| Throttle Valve | #6.0 |
| Jet Needle | W956R-1175W(DAYTONA original) Clip position : In the 3rd groove from the top |
| Air screw | 2 return |

ANIMA 150f ENGINE

Owner's Manual

PRE-OPERATION INSPECTION AND MAINTENANCE

| | |
|----------------------|--------------------|
| Carburetor | KEIHIN PE28 |
| Air Temperature | 20 degrees Celsius |
| Humidity | 50% |
| Atmospheric Pressure | 1000 hPa |

| Item | Recommendation |
|----------------|--|
| Main Jet | #120-#125(with UNI Air Filter) |
| Slow Jet | #42 |
| Throttle Valve | #2.5 |
| Jet Needle | #69414 / 46JFQ (-2 / ϕ 2.505) Clip position : In the 3rd groove from the top |
| Air screw | 2 return |

ANIMA 150f ENGINE

Owner's Manual



PRE-OPERATION INSPECTION AND MAINTENANCE

IGNITION TIMING SELECTION

ANIMA 150f ENGINE comes with ignition timing selectable CDI unit.

To change the ignition timing, it needs to change the connection of the wires that come out of the CDI unit.

WIRE CONNECTION TABLE

| Color of Wire | WHITE | GREEN | YELLOW | GREEN | INGITION TIMING |
|--|-------|-------|--------|-------|---|
| Timing (1) | ○ | ○ | ○ | ○ |  REDUSE ADVANCE |
| Timing (2) | ○ | ○ | ○— | ○ | |
| Timing (3) | ○— | ○ | ○ | ○ | |
| Timing (4) | ○— | ○ | ○— | ○ | |
| <div style="display: flex; align-items: center;">  <div> <p>WARNING</p> <p>USE ADVANCE TIMING GIVES HIGH TEMPERATURE TO ENGINE. SERIOUS DAMAGE WILL OCCURE IN THE ENGINE BY ABNORMAL COMBUSTION.</p> </div> </div> | | | | | |

Notes

- (a) Reduce Timing gives more torque at low-middle rpm level.
- (b) Advance Timing gives more torque at higher rpm level than the Reduce Timing.

Example (How to select)

- * To select Timing (2), connect Yellow and Green wires.

ANIMA 150f ENGINE

Owner's Manual

PRE-OPERATION INSPECTION AND MAINTENANCE

REV LIMITER SELECTION

ANIMA 150f ENGINE comes with rev limiter selectable CDI unit.

To change the rev limiter, it needs to change the connection of the wires that come out of the CDI unit.

WIRE CONNECTION TABLE

| Color of Wire | BLUE | GREEN | BLACK/ YELLOW | GREEN | GREEN/ WHITE |
|-------------------------------|------|-------|------------------|-------|-----------------|
| Rev Limiter (1) -11,500rpm | ○ | ○ | ○ | ○ | ○ |
| Rev Limiter (2) -12,200rpm | ○ | ○ | ○ | ○ | ○ |
| Rev Limiter (3) -12,900rpm | ○ | ○ | ○ | ○ | ○ |
| Rev Limiter (4) -13,600rpm | ○ | ○ | ○ | ○ | ○ |
| Rev Limiter (5) -15,000rpm | ○ | ○ | ○ | ○ | ○ |

Example (How to select)

* To select Rev Limiter (3)-12,900rpm, connect Blue and Green wires.

ANIMA 150f ENGINE

Owner's Manual

PRE-OPERATION INSPECTION AND MAINTENANCE

ENGINE OIL TEMPERATURE CONTROL



WARNING

Engine oil temperature is to be strictly controlled at 90 degrees Celsius (194 degrees Fahrenheit) or lower.

Serious damage will occur in the engine if engine oil temperature exceeds 90 degrees Celsius or 194 degrees Fahrenheit.

It is solely customer's responsibility to control the engine oil temperature.

Any failures caused by overheating are NOT considered as the defects of Products.

It is highly recommended to use HIGH-EFFICIENT OIL COOLER and OIL TEMPERATURE GAUGE to protect the engine.



The above OIL COOLER is just a recommendation.

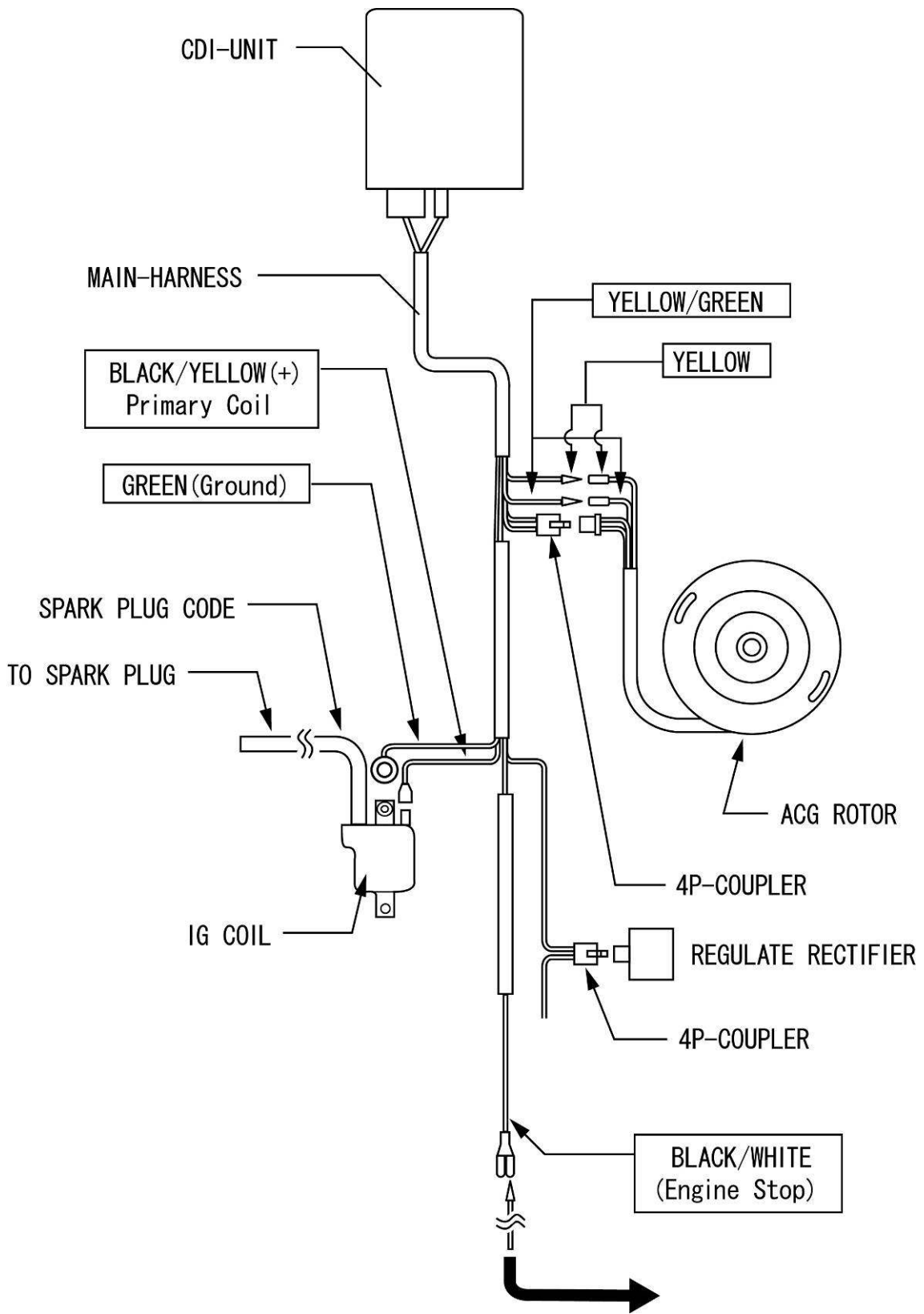
Engine oil temperature can be heated up over 90 degrees Celsius or 194 degrees Fahrenheit, even if the above recommended OIL COOLER is used.

Again, customer needs to control the oil temperature very carefully.

ANIMA 150f ENGINE

Owner's Manual

ELECTRICAL DIAGRAM



ANIMA 150f ENGINE

Owner's Manual

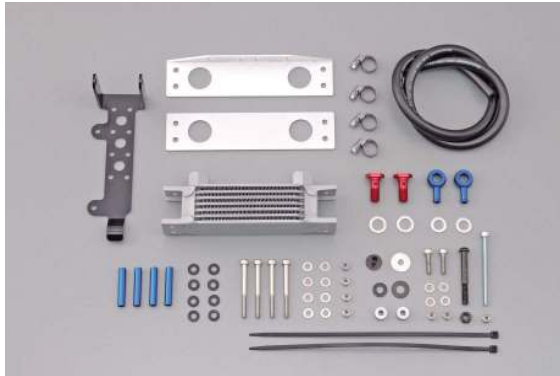
OPTIONAL PARTS

OIL COOLER

The following oil coolers are available from Daytona, but the mount bracket must be made by the customer to fit on his/her bike. The kit components are shown in the below photo.

Daytona Part# 61785

7-Core Oil Cooler Kit



Daytona Part# 62759

10-Core Oil Cooler Kit

(The same kit components as #61785.)



OIL TEMPERATURE GAUGE & FITTING

The following temp. gauge and fitting are available from Daytona. The temp. gauge (#47101) can be used with the Daytona oil cooler (#61785) by using the Daytona sensor fitting (#43350).

Daytona Part# 85995

Temp. gauge & sensor, 0-270 degrees Celsius
PT1/8(Tapered Thread)-Sensor fitting



The following temp. gauge and fitting are available from Daytona. The temp. gauge (#85995) can be used with the Daytona oil cooler (#74019) by using the Daytona sensor fitting (#43350).

ANIMA 150f ENGINE

Owner's Manual

OPTIONAL PARTS

Daytona Part# 43350

Sensor fitting

For PT1/8(Tapered Thread) sensor

Designed for a 8mm inner dia. oil hoses



Daytona Part# 85018

Sensor fitting M12 x P1.5

(Oil Drain Bolt)

For PT1/8(Tapered Thread) sensor



REINFORCED CLUTCH FRICTION DISC

Daytona Part # 84749

Reinforced clutch friction disc, 1pc

Made by FCC JAPAN



ANIMA 150f ENGINE

Owner's Manual

OPTIONAL PARTS



Since these UPGRADE KIT PARTS are designed specifically for the top competition riders, ANY FAILURES CAUSED BY THE INSTALLATION OF THESE OPTIONAL PARTS ARE NOT CONSIDERED AS THE DEFECTS OF PRODUCTS.

CARBURETOR KEIHIN PE28

Daytona Part # 85707 (with Throttle valve #3.0)

Keihin PE28 Carburetor



CARBURETOR SETTING PARTS

Daytona Part # 31123

Main Jet Set (8 pcs/set) for Keihin
#115,118,120,122,125,128,130,&132

Daytona Part # 31124

Main Jet Set (8 pcs/set) for Keihin
#128,130,132,135,138,140,142,&145



Daytona Part # 69906

Slow Jet Set, 6pcs/set
Air bleed type
For Keihin PE & PWK
#35, 38, 40, 42, 45, & 48



ANIMA 150f ENGINE

Owner's Manual

OPTIONAL PARTS

Daytona Part # 65414

JET NEEDLE

#69359 / 46JFL (+2 / Diameter of straight ϕ 2.465 / RICH)

#69361 / 46JFM (+1 / ϕ 2.475)

#69374 / 46JFN (0 / ϕ 2.485)

#69376 / 46JFP (-1 / ϕ 2.495)

#69414 / 46JFQ (-2 / ϕ 2.505)

#69378 / 46JFR (-3 / ϕ 2.515)

#69380 / 46JFS (-4 / ϕ 2.525 / LEAN)



*Angle of taper = 3 deg (all)

* Height to taper = 26.77mm(all)

Daytona Part No.

Throttle valve / For PE28

65416 (# 2.0)

69353 (# 2.5)

69354 (# 3.0)

69355 (# 4.0)



ANIMA 150f ENGINE

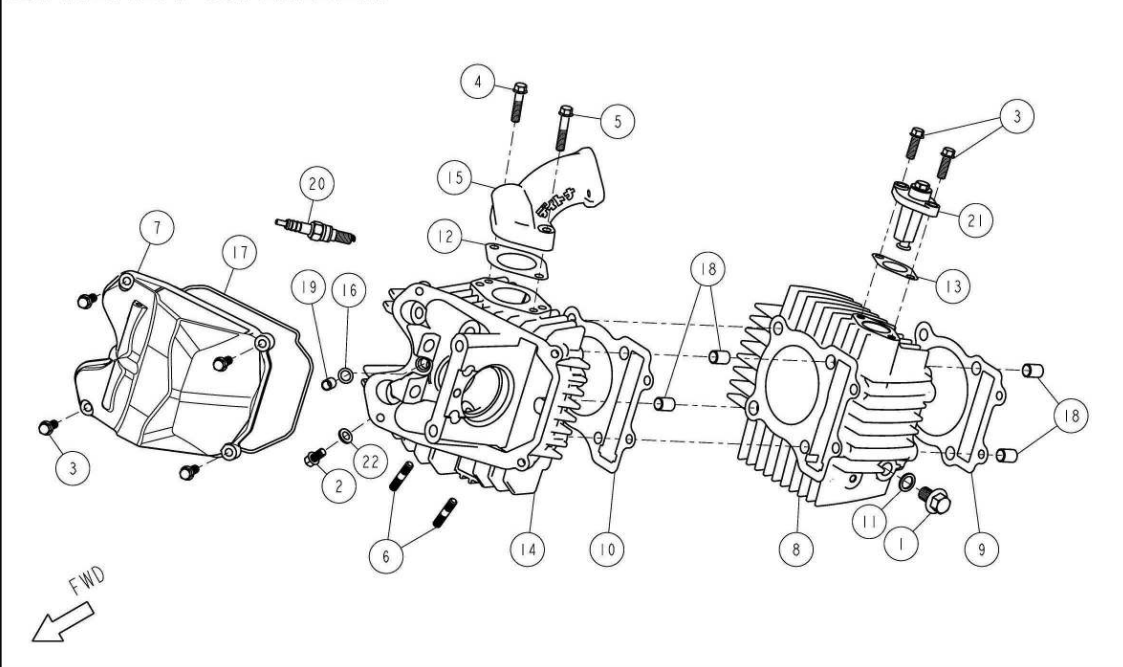
Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



PART CATALOGUE (ENGINE No. ANIMA150F0000000001~) REVISED DATE 19 January, 2012

01 HEAD / CYLINDER

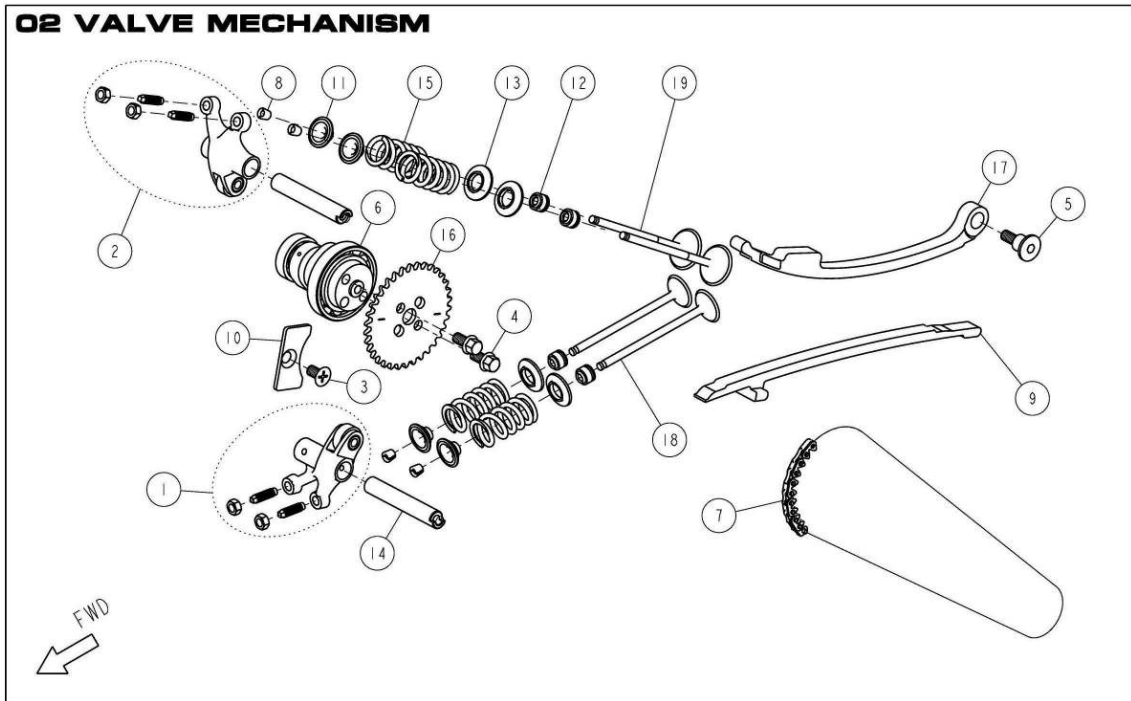


| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|-----------------------------|-----|----------|
| 1 | 86448 | BOLT, HEXAGON FLANGE M10x16 | 1 | |
| 2 | 85877 | BOLT, HEXAGON FLANGE M6x12 | 1 | |
| 3 | 86468 | BOLT, HEXAGON FLANGE M6x18 | 6 | |
| 4 | 86466 | BOLT, HEXAGON FLANGE M6x25 | 1 | |
| 5 | 86471 | BOLT, HEXAGON FLANGE M6x30 | 1 | |
| 6 | 83703 | BOLT, STUD M6x32 | 2 | |
| 7 | 86367 | COVER, CYLINDER HEAD | 1 | |
| 8 | 86366 | CYLINDER | 1 | Φ 62.0mm |
| 9 | 86436 | GASKET, BASE CYLINDER | 1 | t=0.25 |
| 10 | 86440 | GASKET, HEAD CYLINDER | 1 | t=0.25 |
| 11 | 86476 | GASKET, M10 | 1 | |
| 12 | 86405 | GASKET, MANIFOLD | 1 | |
| 13 | 86439 | GASKET, TANSIONER CAM CHAIN | 1 | |
| 14 | 86368 | HEAD, CYLINDER | 1 | |
| 15 | 86404 | MANIFOLD, INTAKE | 1 | |
| 16 | 86479 | O-RING | 1 | |
| 17 | 86434 | O-RING, COVER HEAD | 1 | |
| 18 | 83720 | PIN, DOWEL Φ 10x Φ 8.4x14 | 4 | |
| 19 | 83747 | PIN, DOWEL Φ 8x Φ 6.3x12 | 1 | |
| 20 | 86429 | SPARK PLUG ER9EH | 1 | M8xP1 |
| 21 | 86396 | TENSIONER, CAM CHAIN COMP | 1 | |
| 22 | 86456 | WASHER, Φ 6.3x Φ 12x1.5 | 1 | |

ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|-----------------------------|-----|-----------------------------|
| 1 | 86481 | ARM, ROCKER ROLLER EX. COMP | 1 | |
| 2 | 86393 | ARM, ROCKER ROLLER IN. COMP | 1 | |
| 3 | 86460 | BOLT, COUNTERSINK M6x15 | 1 | |
| 4 | 86465 | BOLT, HEXAGON FLANGE M6x12 | 2 | |
| 5 | 86447 | BOLT, TENSIONER | 1 | |
| 6 | 86388 | CAMSHAFT 240° ROLLER | 1 | LOBE CENTER 101° (INT, EXH) |
| 7 | 86391 | CHAIN, CAMSHAFT DRIVE | 1 | 94L |
| 8 | 86402 | COTTER, VALVE | 8 | |
| 9 | 86395 | GUDE , CHAIN CAMSHAFT | 1 | |
| 10 | 86389 | PLATE, STOPPER CAM | 1 | |
| 11 | 86400 | RETAINER, SPRING VALVE | 4 | |
| 12 | 86403 | SEAL, VALVE STEM Φ 4.5 | 4 | |
| 13 | 86401 | SEAT, SPRING VALVE | 4 | |
| 14 | 86392 | SHAFT, ROCKER | 2 | |
| 15 | 86504 | SPRING, VALVE | 4 | |
| 16 | 86390 | SPROCKET, CAMSHAFT DRIVEN | 1 | 34T |
| 17 | 86394 | TENSIONER, CAM CHAIN | 1 | |
| 18 | 86398 | VALVE, EXHAUST Φ 21 | 2 | |
| 19 | 86397 | VALVE, INTAKE Φ 24.5 | 2 | |

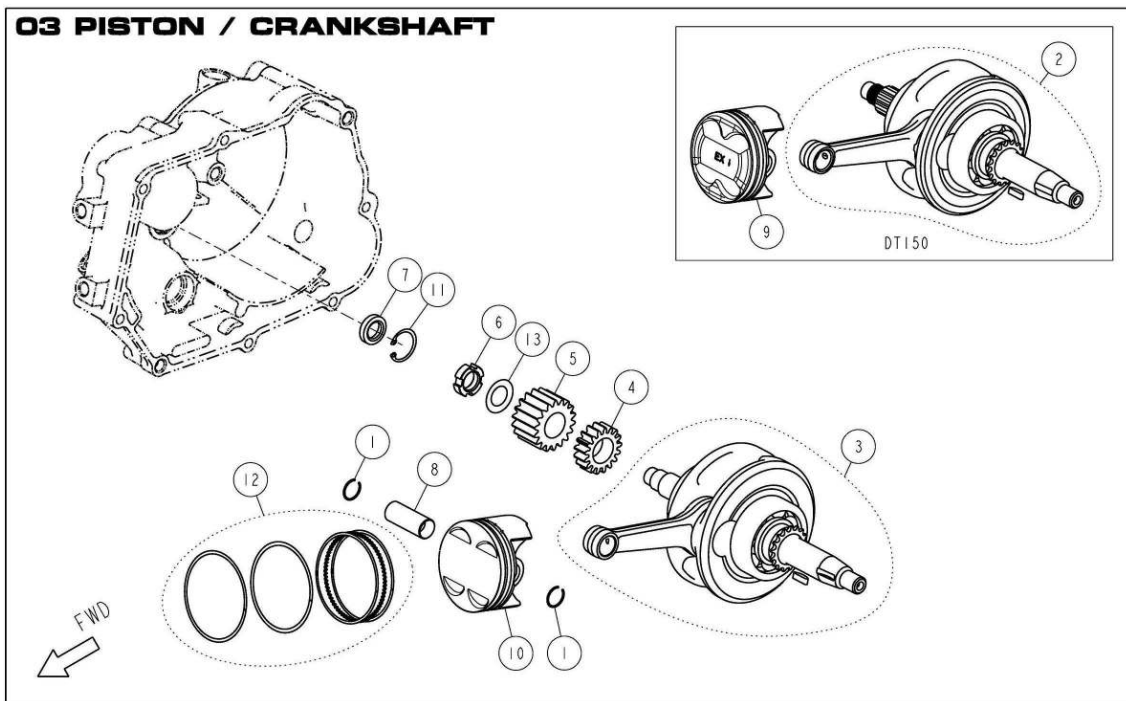
ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



03 PISTON / CRANKSHAFT

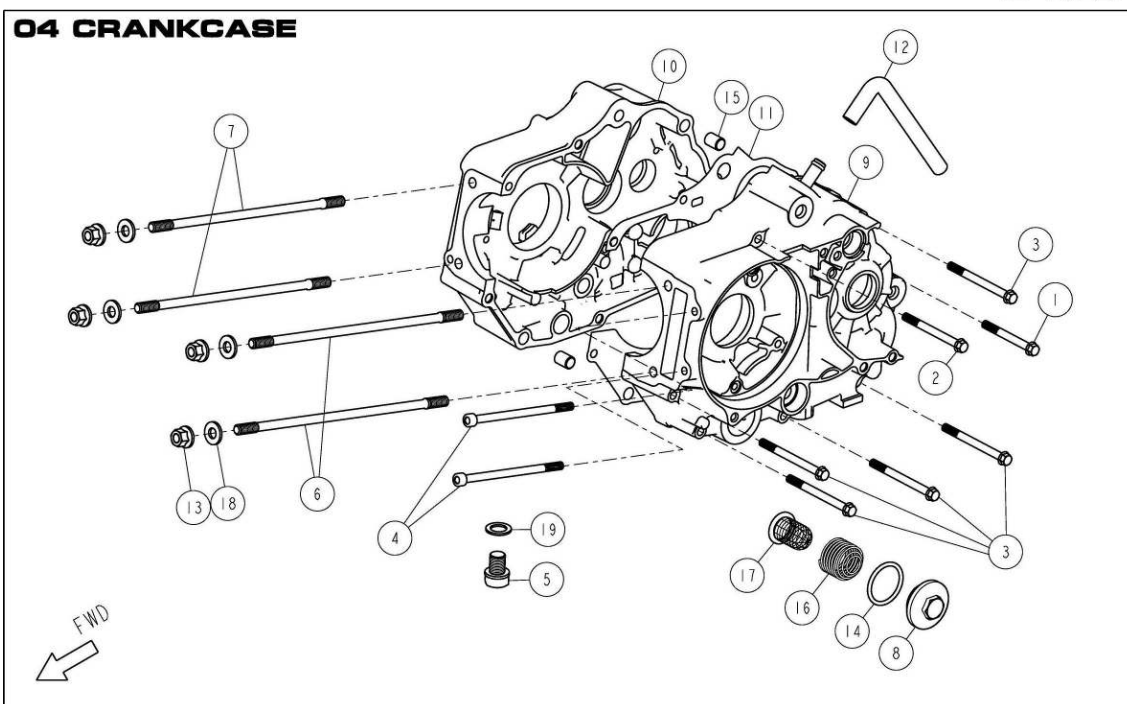


| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|--|-----|------------------|
| 1 | 86453 | CLIP, PIN PISTON | 2 | |
| 2 | 86381 | CRANK SHAFT ASSY DT150F | 1 | STROKE 49.6mm |
| 4 | 86383 | GEAR, OIL PUMP DRIVE | 1 | 17T |
| 5 | 86415 | GEAR, PRIMARY DRIVE | 1 | 18T |
| 6 | 86450 | NUT, SMALL M14 | 1 | |
| 7 | 86443 | OIL SEAL, $\Phi 12 \times \Phi 20 \times 5t$ | 1 | |
| 8 | 86379 | PIN, PISTON $\Phi 14$ | 1 | |
| 9 | 86378 | PISTON DT150 | 1 | BORE $\Phi 62.0$ |
| 11 | 86462 | RETAINING RING, RTWN22 | 1 | |
| 12 | 86380 | RING SET, PISTON | 1 | |
| 13 | 86411 | WASHER, SPRING | 1 | |

ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)

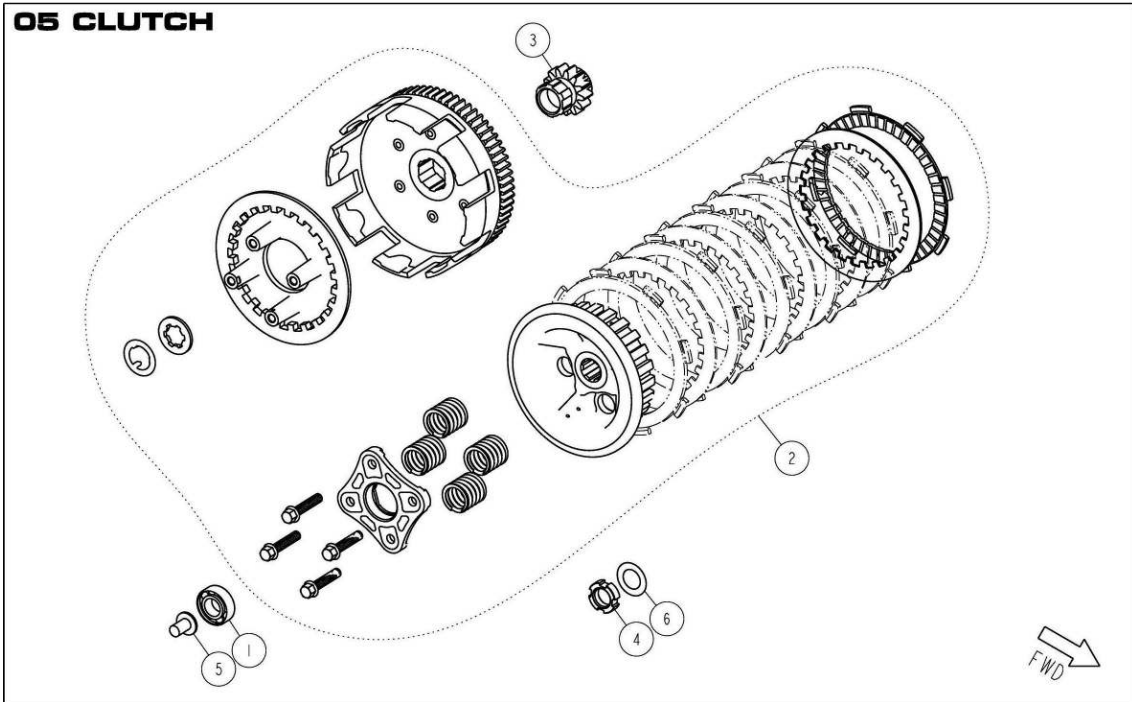


| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|--|-----|--------------------|
| 1 | 86474 | BOLT, HEXAGON FLANGE M6x55 | 1 | |
| 2 | 83761 | BOLT, HEXAGON FLANGE M6x65 | 1 | |
| 3 | 86360 | BOLT, HEXAGON FLANGE M6x70 | 5 | |
| 4 | 86459 | BOLT, HEXAGON SOCKET M6x105 | 2 | |
| 5 | 83755 | BOLT, OIL DRAIN M12x1.5 | 1 | |
| 6 | 86444 | BOLT, STUD A | 2 | M8xP1.25 L=223mm |
| 7 | 86445 | BOLT, STUD B | 2 | M8xP1.25 L=203.5mm |
| 8 | 86369 | COVER, STRAINER OIL | 1 | |
| 9 | 86370 | CRANK CASE, LH | 1 | |
| 10 | 86372 | CRANK CASE, RH | 1 | |
| 11 | 86438 | GASKET, CRANKCASE | 1 | |
| 12 | 86371 | HOSE, BREATHER | 1 | |
| 13 | 86451 | NUT FLANGE, M8 | 4 | |
| 14 | 86433 | O-RING, $\Phi 30 \times \Phi 3$ | 1 | |
| 15 | 83720 | PIN, DOWEL $\Phi 10 \times \Phi 8.4 \times 14$ | 2 | |
| 16 | 86385 | SPRING, STRAINER | 1 | |
| 17 | 86387 | STRAINER, OIL | 1 | |
| 18 | 86457 | WASHER, GASKET M8 | 4 | |
| 19 | 83754 | WASHER, OIL DRAIN M12 | 1 | |

ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|--|-----|---------|
| 1 | 83786 | BEARING, #6000 | 1 | |
| 2 | 86409 | CLUTCH COMP | 1 | |
| 3 | 86417 | GEAR, STARTER DRIVEN 2 13T | 1 | |
| 4 | 86450 | NUT, SMALL M14 | 1 | |
| 5 | 83787 | PIN, LIFTER CLUTCH | 1 | |
| 6 | 86410 | WASHER, SPRING $\Phi 24 \times \Phi 14.2 \times 1.2$ | 1 | |

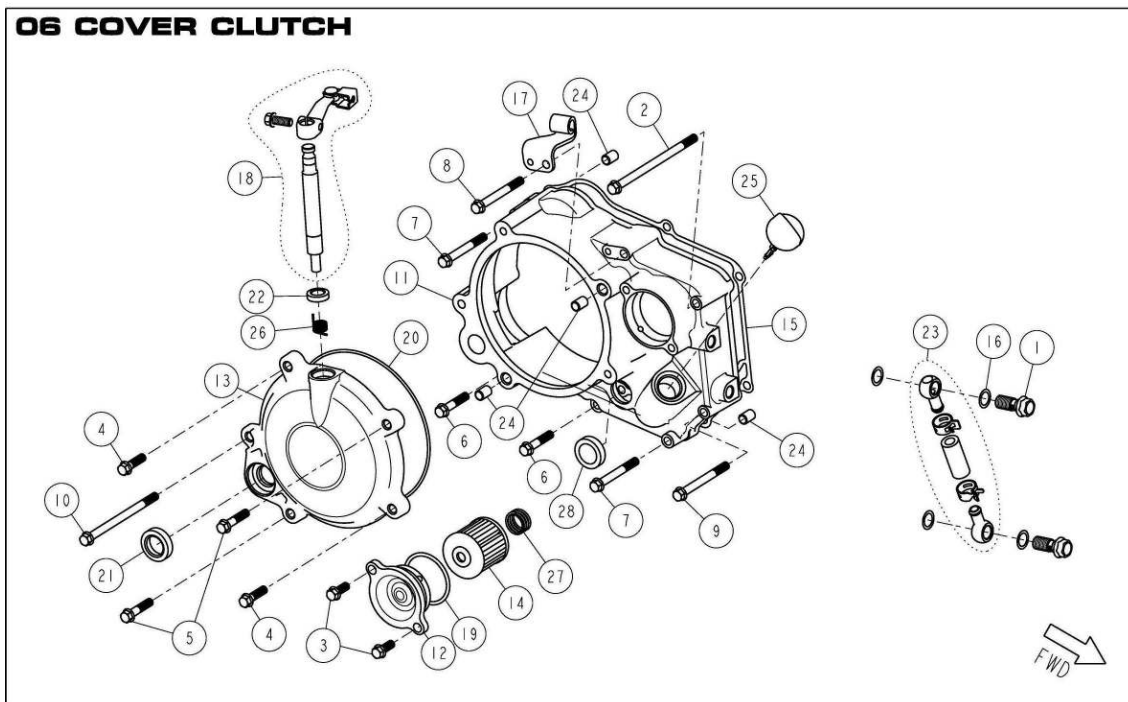
ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



06 COVER CLUTCH

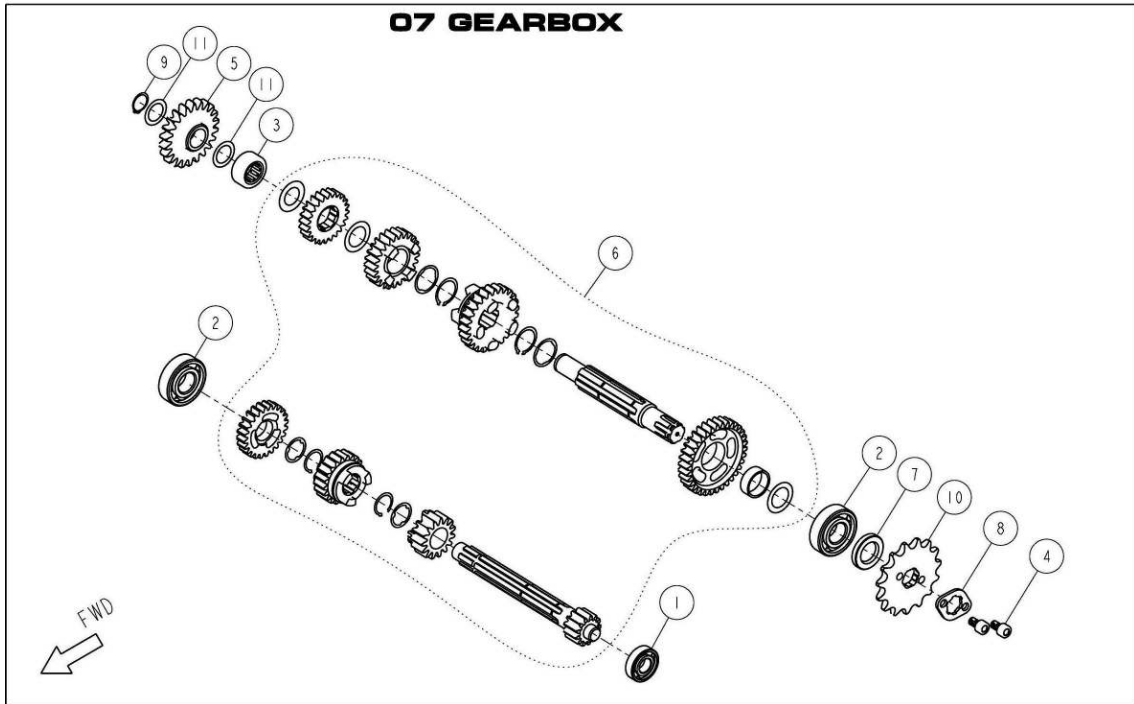


| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|---|-----|---------|
| 1 | 86446 | BOLT, BANJO M10x22.5 | 2 | |
| 2 | 86362 | BOLT, HEXAGON FLANGE M6x105 | 1 | |
| 3 | 86486 | BOLT, HEXAGON FLANGE M6x15 | 2 | |
| 4 | 86469 | BOLT, HEXAGON FLANGE M6x22 | 2 | |
| 5 | 86485 | BOLT, HEXAGON FLANGE M6x28 | 2 | |
| 6 | 86471 | BOLT, HEXAGON FLANGE M6x30 | 2 | |
| 7 | 86473 | BOLT, HEXAGON FLANGE M6x50 | 2 | |
| 8 | 86474 | BOLT, HEXAGON FLANGE M6x55 | 1 | |
| 9 | 83759 | BOLT, HEXAGON FLANGE M6x60 | 1 | |
| 10 | 86361 | BOLT, HEXAGON FLANGE M6x90 | 1 | |
| 11 | 86376 | COVER, CLUTCH | 1 | |
| 12 | 86374 | COVER, OIL FILTER | 1 | |
| 13 | 86377 | COVER, SMALL CLUTCH | 1 | |
| 14 | 86384 | FILTER, OIL | 1 | |
| 15 | 86437 | GASKET, COVER CLUTCH | 1 | |
| 16 | 86476 | GASKET, M10 | 4 | |
| 17 | 86412 | HOLDER, CABLE CLUTCH | 1 | |
| 18 | 86414 | LEVER, CLUTCH COMP | 1 | |
| 19 | 86432 | O-RING, $\Phi 38.6 \times 2.6$ | 1 | |
| 20 | 86435 | O-RING, COVER SMALL CLUTCH | 1 | |
| 21 | 86441 | OIL SEAL, $\Phi 16 \times \Phi 26 \times 7$ | 1 | |
| 22 | 86442 | OIL SEAL, $\Phi 17 \times \Phi 10 \times 5$ | 1 | |
| 23 | 86406 | OIL THROUGH COMP | 2 | |
| 24 | 83747 | PIN, DOWEL $\Phi 8 \times \Phi 6.3 \times 12$ | 4 | |
| 25 | 86386 | RULER | 1 | |
| 26 | 86413 | SPRING, LEVER CLUTCH | 1 | |
| 27 | 86375 | SPRING, OIL FILTER | 1 | |
| 28 | 86475 | WINDOW, OIL LEVEL | 1 | |

ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



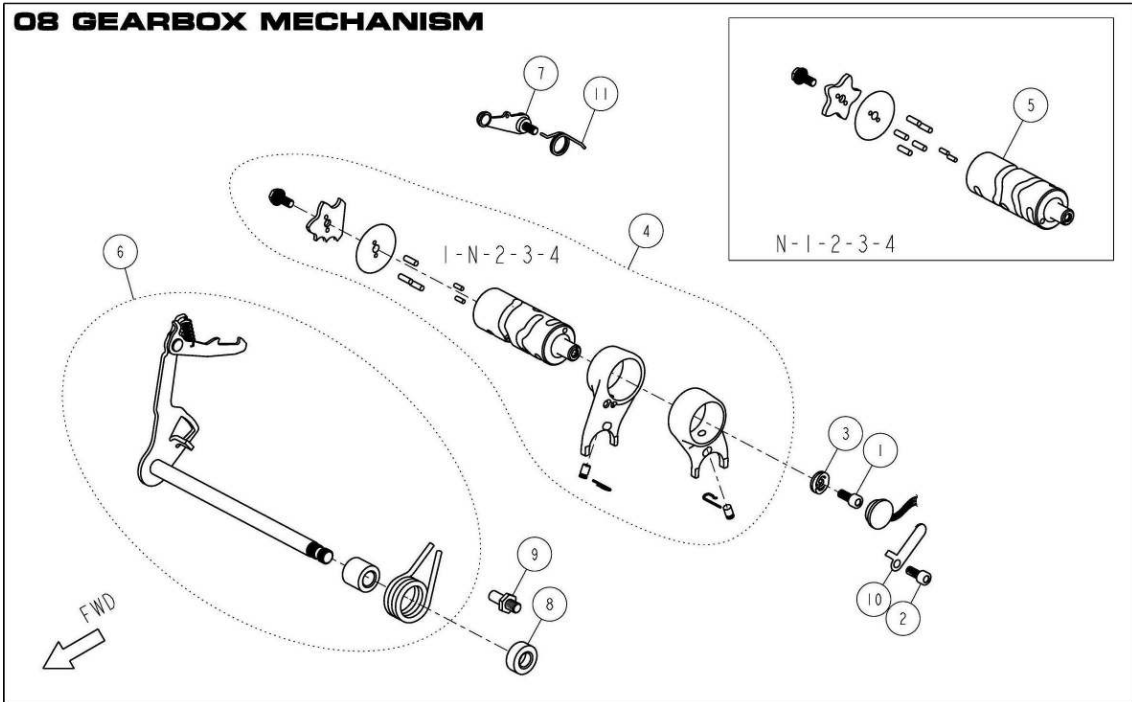
| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|---|-----|---------|
| 1 | 83788 | BEARING #6001 | 1 | |
| 2 | 83795 | BEARING #6203 | 2 | |
| 3 | 86454 | BEARING NK152712 | 1 | |
| 4 | 86464 | BOLT, HEXAGON SOCKET M6x10 | 2 | |
| 5 | 86418 | GEAR IDLE, STARTER | 1 | |
| 6 | 86416 | GEAR, COMP | 1 | |
| 7 | 83796 | OIL SEAL, $\Phi 29 \times \Phi 17 \times 5$ | 1 | |
| 8 | 86420 | PLATE, FIXING SPROCKET DRIVE | 1 | |
| 9 | 86463 | RETAINING RING $\Phi 13.6$ | 1 | |
| 10 | 86419 | SPROCKET, DRIVE 15T | 1 | |
| 11 | 86455 | WASHER, $\Phi 22 \times \Phi 15 \times 0.5$ | 2 | |

| GEAR,ASSEMBLY (MAIN & COUNTER) | | (4speed) | | | |
|--------------------------------|-----|----------|-----|-----|--|
| | 1st | 2nd | 3rd | 4th | |
| MAIN | 13 | 15 | 21 | 24 | |
| COUNTER | 34 | 26 | 25 | 22 | |

ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|--|-----|---------|
| 1 | 86449 | BOLT, HEXAGON SOCKET M6 | 1 | |
| 2 | 85877 | BOLT, HEXAGON SOCKET M6x15 | 1 | |
| 3 | 83833 | CONTACT, GEAR INDICATION | 1 | |
| 5 | 86421 | DRUM, SHIFT N-1-2-3-4 COMP | 1 | |
| 6 | 86422 | LEVER, GEAR SHIFT COMP | 1 | |
| 7 | 86424 | LOCATING PLATE UNIT | 1 | |
| 8 | 83837 | OIL SEAL, $\Phi 24 \times \Phi 16 \times 10$ | 1 | |
| 9 | 86480 | PIN, LOCATING SHIFT LEVER | 1 | |
| 10 | 85876 | PLATE, LOCATING SWITCH N. | 1 | |
| 11 | 86423 | SPRING, LOCATING PLATE | 1 | |

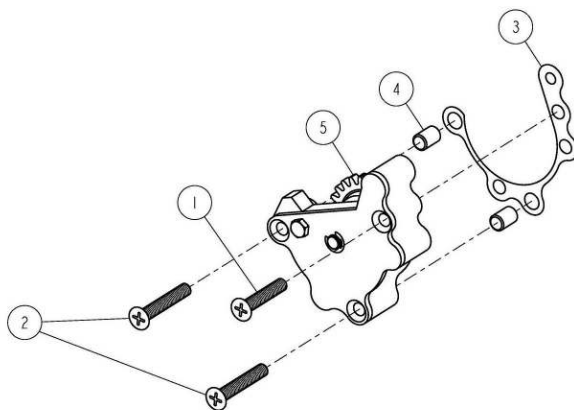
ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



09 OIL PUMP



| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|---|-----|---------|
| 1 | 84678 | BOLT, COUNTERSUNK M6x30 | 1 | |
| 2 | 84677 | BOLT, COUNTERSUNK M6x35 | 2 | |
| 3 | 84676 | GASKET, PUMP OIL | 1 | |
| 4 | 83747 | PIN, DOWEL $\Phi 8 \times \Phi 6.3 \times 12$ | 2 | |
| 5 | 86382 | PUMP, OIL ASSY | 1 | |

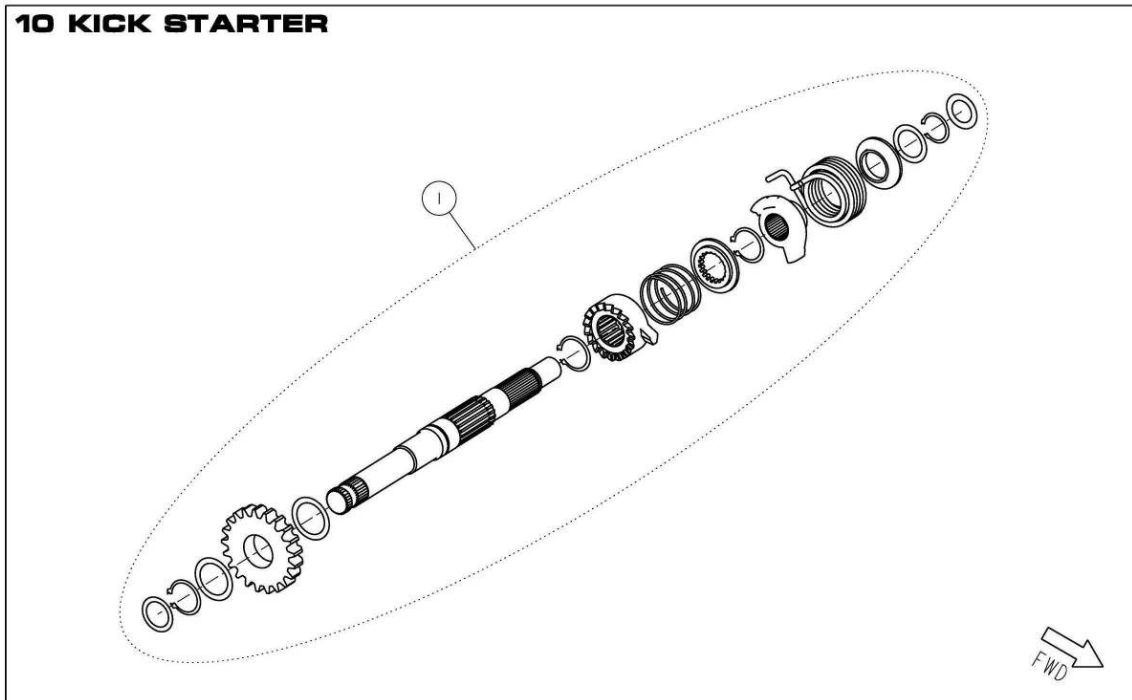
ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)

54-T

10 KICK STARTER



| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|------------------|-----|---------|
| 1 | 86407 | KICK STARTER ASM | 1 | |

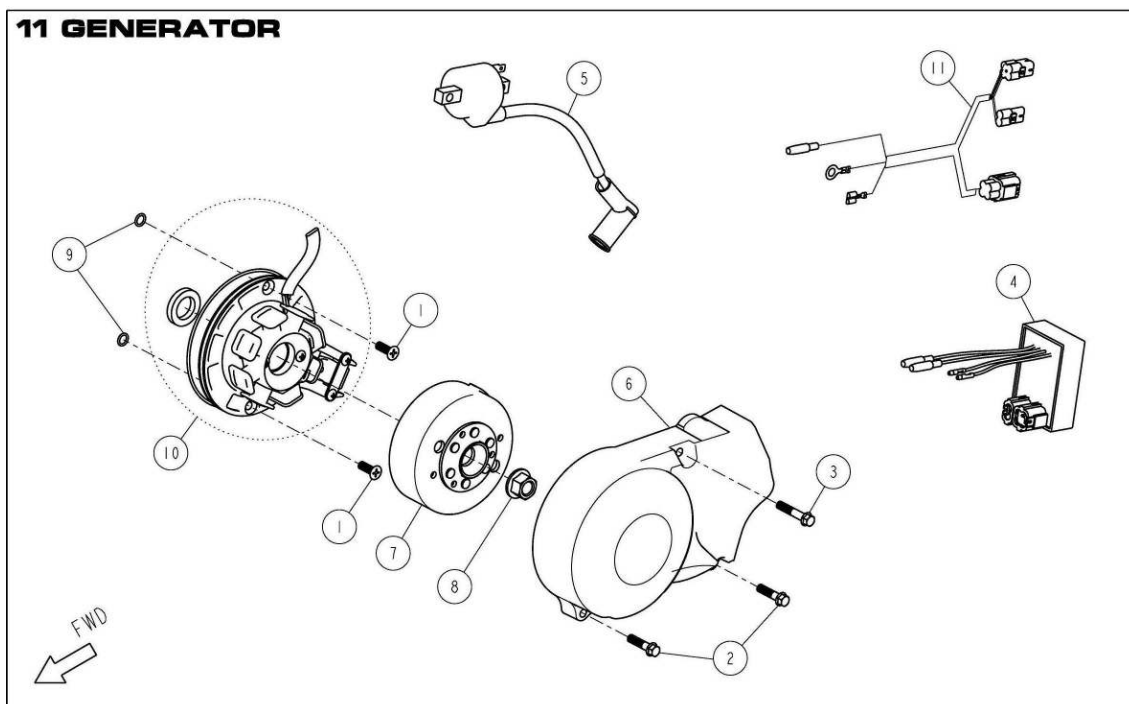
ANIMA 150f ENGINE

Owner's Manual

PARTS CATALOGUE (Engine No. ANIMA150F 000000001-)



11 GENERATOR



| Ref No. | Part No. | DESCRIPTION | QTY | REMARKS |
|---------|----------|------------------------------------|-----|---------------------------|
| 1 | 86461 | BOLT, COUNTERSUNK M6x15 | 2 | |
| 2 | 86464 | BOLT, HEXAGON FLANGE M6x25 | 2 | |
| 3 | 86472 | BOLT, HEXAGON FLNAGE M6x32 | 1 | |
| 4 | 86427 | BOX, CDI | 1 | W/ SELECTABLE REV LIMITER |
| 5 | 86426 | COIL, IGN ITION | 1 | |
| 6 | 86373 | COVER, MAGNET | 1 | |
| 7 | 86431 | FLYWHEEL MAGNET COMP | 1 | |
| 8 | 86452 | NUT, MAGNET M12 | 1 | |
| 9 | 86479 | O-RING, $\Phi 6.5 \times \Phi 1.8$ | 2 | |
| 10 | 86430 | STATOR ASSY | 1 | |
| 11 | 86428 | WIRE HERNESS | 1 | |

DAYTONA corp.

2012.02.24