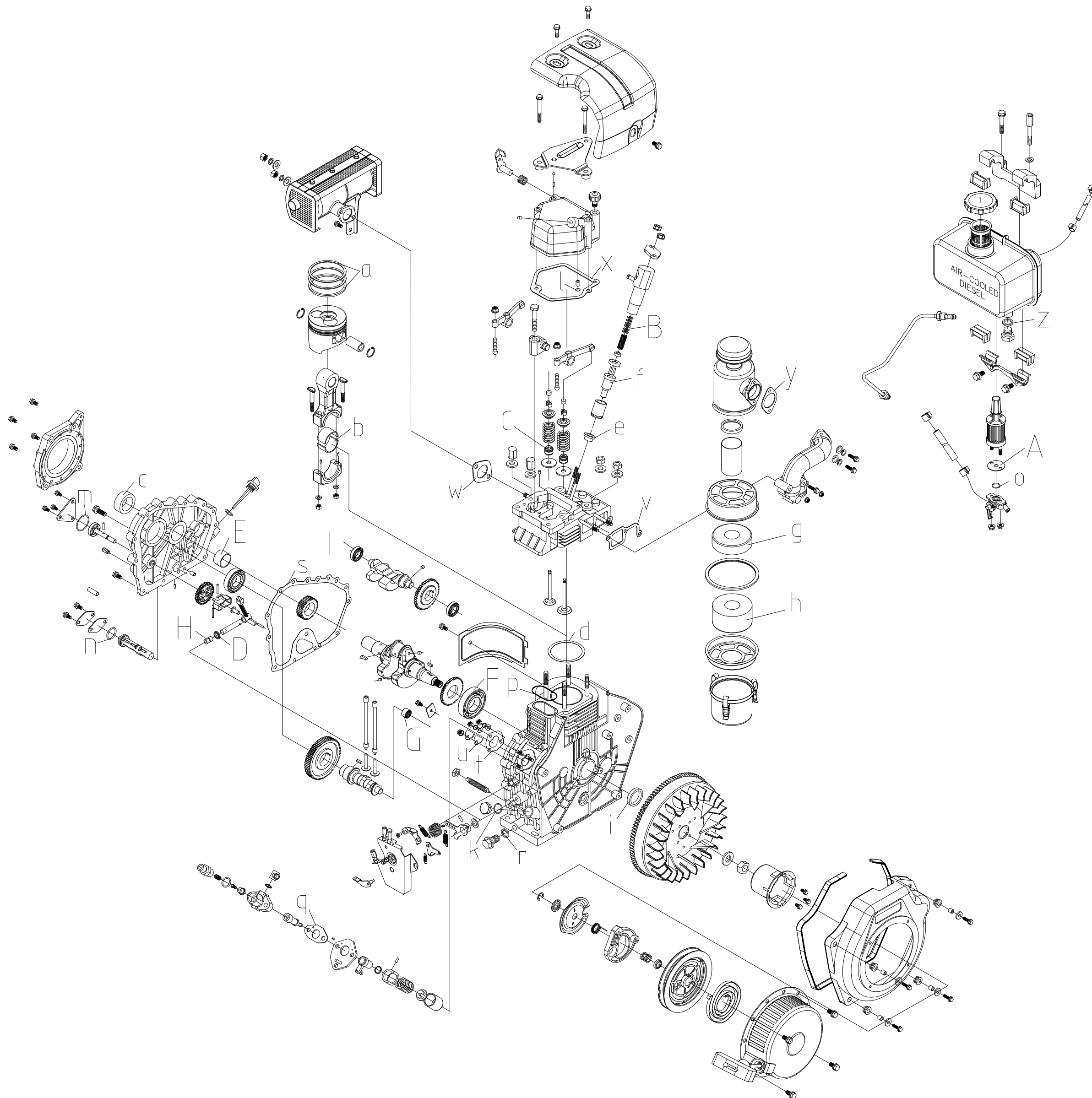


# ASSEMBLY AND PARTS ALBUM

## KD170FY DIESEL ENGINE



### Easy-destroyed parts

No.	Part No.	Description	Qty.
a	KM170F-04100T	Piston ring	1
b	KM168F-04005	Connecting rod bearing shell	2
c	KM168F-01022	Oil seal 25×42×8	1
d	KM170F-01013a	Cylinder head gasket	1
e	KM170F-02011	Heat insulator bushing	1
f	KM170F-13100	Fuel injection nozzles	1
g	KM186FS-07323	Fine filter element	1
h	KM186FS-07326	Coarse filter element	1
i	KM178F-01019	Oil seal 30×45×8	1

### Sealing ring

No.	Part No.	Description	Qty.
k	KM168F-01024	O seal ring 22.5×2.4	2
l	KM168F-03009	O seal ring 12×1.9	1
m	KM168F-09006	O seal ring 34×1.8	1
n	KM168F-09005	O seal ring 25×2.4	1
o	KM168F-10017	O seal ring 14×1.6	1
p	KM168F-01008	Seal ring	1

### Gasket

No.	Part No.	Description	Qty.
q	KM170F-12004	Adjusting gasket	SOME
r	KM170F-01023	Oil drain plug gasket	1
s	KM168F-01015	Crankshaft housing cover gasket	1
t	KM168F-10014	Fuel injection pump gasket	2-3
u	KM168F-10016	Seal plate gasket	1
v	KM168F-02014	Air intake pipe gasket	1
w	KM168F-02015	Air exhaust pipe gasket	1
x	KM168F-03003	Cylinder head hood gasket	1
y	KM186FS-07002	Air filter flange gasket	1
z	KM168F-10008	Oil drain bolt gasket	1
A	KM168F-10007	Diesel filter gasket	1
B	KM170F-13007	Pressure adjusting gasket	1

### Oil seal

No.	Part No.	Description	Qty.
C	KM168F-02006	Valve guide oil seal	2
D	KM168F-11008	Lever shaft oil seal	1

### Bearing

No.	Part No.	Description	Qty.
E	KM168F-01014	Sliding bearing	1
F	GB/T276-1994	Rolling bearing 6306/P5	1
G	GB/T290-1998	Needle bearing HK1512	1
H	GB/T290-1998	Needle bearing HK0810	2
I	GB/T276-1994	Rolling bearing 6202/P5	2

### Tightening torque for main nuts and bolts

No.	Description	Torque
①	Connecting bolt	18-21
②	Cylinder head nut	28-32
③	Flywheel nut	100-120
④	Fuel injector pressing plate nut	10-12
⑤	Tightening nut of rocker arm seat	20-23
⑥	Standard M6 bolt/nut	10-12
⑦	Standard M8 bolt/nut	18-20

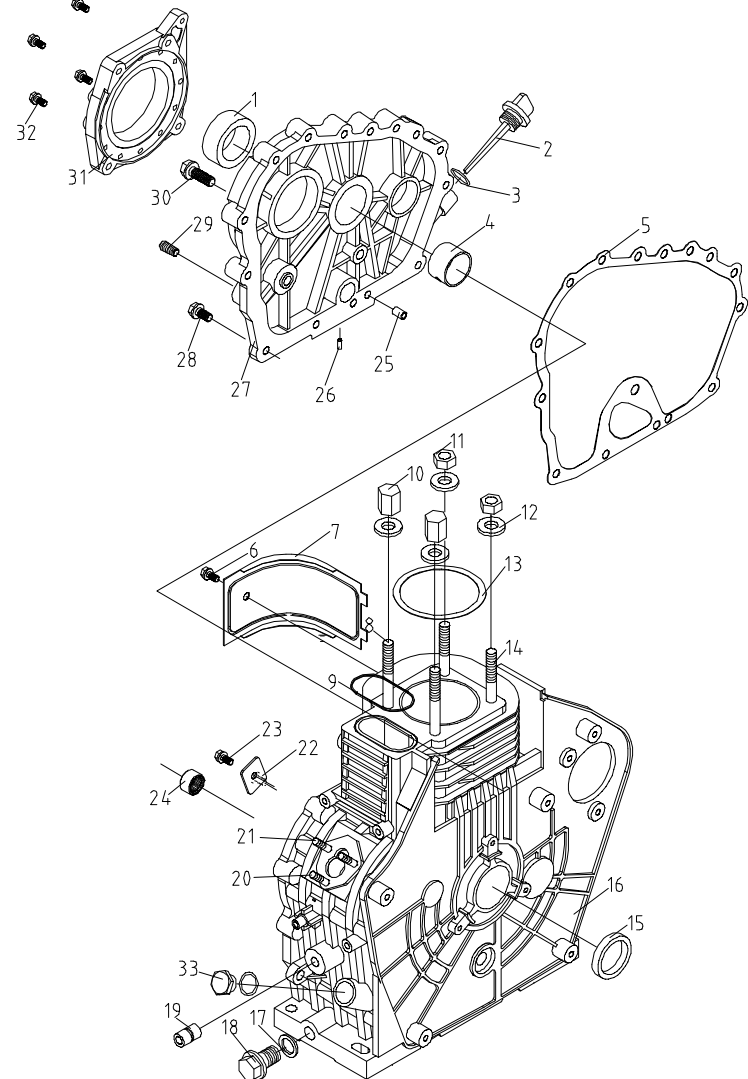
**WUXI KIPOR MACHINERY CO., LTD.**

No. 10, 14, 15 Standard workshop, Third-stage Development Section of Wangzhuang Industry Area,  
Wuxi New District, Jiangsu TEL: 0086-510-85205041 FAX: 0086-510-85203796



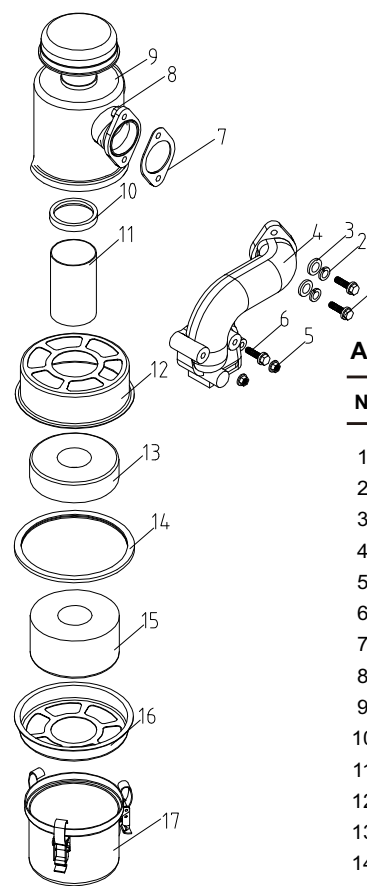
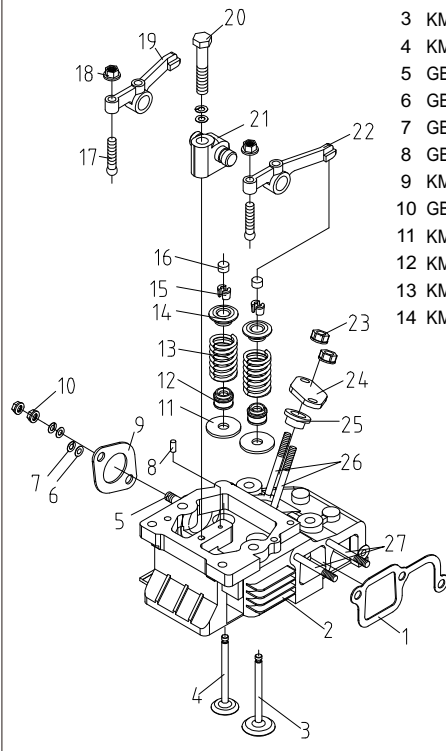
### Engine block assy KM170FYE-01000

No. Part No.	Description	Qty.	No. Part No.	Description	Qty.		
1	KM168F-01022	Oil seal 25×42×8	1	18	KM168F-01018	Oil drain plug	1
2	KM168F-01002	Oil dipstick	1	19	GB/T290-1998	Needle bearing HK0810	2
3	KM168F-01024	O seal ring 22.5×2.4	2	20	KM168F-01012	Fuel injection pump tightening stud (short)	1
4	KM168F-01014	Sliding bearing	1	21	KM168F-01011	Fuel injection pump tightening stud (long)	2
5	KM168F-01015	Crankshaft housing cover gasket	1	22	KM168F-01009	Thrust washer	1
6	GB/T5789-1986	Bolt M6×12	1	23	GB/T5789-1986	Bolt M8×12	1
7	KM168F-01019	Air induced plate 1	1	24	GB/T290-1998	Needle bearing HK1512	1
8	KM168F-01006	Double-head stud for cylinder head (long)	2	25	GB/T119.2-2000	Pin 8×12	2
9	KM168F-01008	Seal ring	1	26	KM168F-01021	Plug	2
10	KM168F-01007	Cylinder head nut (thick)	1	27	KM168F-01016	Crankshaft housing cover	1
11	KM168F-01004	Cylinder head nut (thin)	2	28	KM170F-01025	Crankshaft housing cover bolt	14
12	KM168F-01005	Cylinder head Nut washer	4	29	KM168F-01017	Inner hexagon plug screw	1
13	KM170F-01013a	Cylinder head gasket	1	30	KM170F-01026	Crankshaft housing cover bolt 1	1
14	KM168F-01003	Double-head stud for cylinder head (short)	2	31	KM170FY-F000	Connecting plate	1
15	KM178F-01019	Oil seal 30×45×8	1	32	GB/T70.1-2000	Bolt M8×23	4
16	KM170F-01001	Engine block	1	33	KM170FY-01023	Drilling plug screw	1
17	KM170F-01023	Oil drain plug gasket	1				



### Cylinder head assy KM168F-02000

No. Part No.	Description	Qty.	No. Part No.	Description	Qty.		
1	KM168F-02014	Air intake pipe gasket	1	15	KM168F-02001a	Valve collet	4
2	KM168F-02200	Cylinder head	1	16	KM168F-02016	Valve adjusting block	2
3	KM168F-02004a	Air intake valve	1	17	KM168F-02008	Valve adjusting screw	2
4	KM168F-02003a	Air exhaust valve	1	18	KM168F-02019	Adjusting locking nut for valve	2
5	GB/T899-1988	Stud Am8×20	2	19	KM168F-02012	Exhaust valve rocker arm	1
6	GB/T97.1-2002	Washer 8	3	20	KM168F-02017	Tightening bolt for rocker arm bracket 1	1
7	GB/T93-1987	Washer 8	3	21	KM168F-02100	Rocker arm seat	1
8	GB/T119.2-2000	Pin 4×8	1	22	KM168F-02013	Intake valve rocker arm	1
9	KM168F-02015	Air exhaust pipe gasket	1	23	GB/T6177.1-2000	Nut M6	2
10	GB/T6170-2000	Nut M8	2	24	KM168F-02009	Fuel injector pressing plate	1
11	KM168F-02007	Valve spring washer	2	25	KM170F-02011	Heat insulator bushing	1
12	KM170F-02006	Valve guide oil seal	2	26	GB/T900-1988	Stud Am6×50	2
13	KM168F-02005	Valve spring	2	27	GB/T900-1988	Stud Am6×55	2
14	KM168F-02002a	Valve spring seat	2				

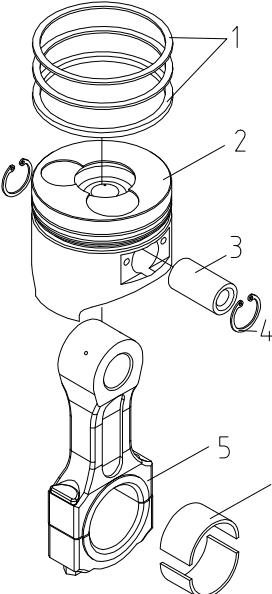
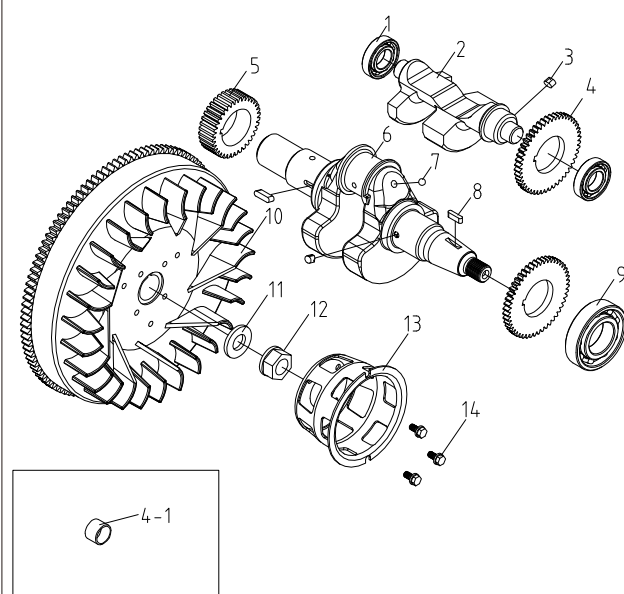


### Air intake system KM170FY-07000a

No. Part No.	Description	Qty.	
1	GB/T5782-2000	Bolt M8×35	2
2	GB/T93-1987	Washer 8	2
3	GB/T848-2002	Washer 8	4
4	KM170FY-07001	Air intake pipe	1
5	GB/T6177.1-2000	Nut M6	2
6	GB/T5789-1986	Bolt M6×25	1
7	K186FS-07002	Air filter flange gasket	1
8	GB/T6170-2000	Nut M8	2
9	KM186FS-07310	Upper part of air filter	1
10	KM186FS-07324	Rubber seal ring	1
11	KM186FS-07325	Air pipe	1
12	KM186FS-07322	Fine filter element cover	1
13	KM186FS-07323	Fine filter element	1
14	KM186FS-07321	Rubber seal ring	1
15	KM186FS-07326	Coarse filter element	1
16	KM186FS-07327	Coarse filter element cover	1
17	KM186FS-07330	Lower part of air filter	1

### Crankshaft and flywheel assy KM170FY-05000

No. Part No.	Description	Qty.	
1	GB/T276-1994	Rolling bearing 6202/P5	2
2	KM168F-05301	Balanced shaft	1
3	KM168F-05006	Key	2
4	KM170F-05004	Balanced shaft driving gear	2
4-1	KM168F-05004a	Bushing	1
5	KM170FS-05203	Crankshaft timing gear	1
6	KM170FG(4)-05201	Crankshaft	1
7	GB/T308-2002	Steel ball SΦ6.35	1
8	GB/T1096-2003	Key 5×12	2
9	GB/T276-1994	Rolling bearing 6206/P5	1
10	KM168F-05101	Flywheel	1
11	KM168F-05003	Flywheel nut washer	1
12	KM168F-05002	Flywheel nut	1
13	KM168F-05001	Starting claw	1
14	GB/T5789-1986	Bolt M6×12	3

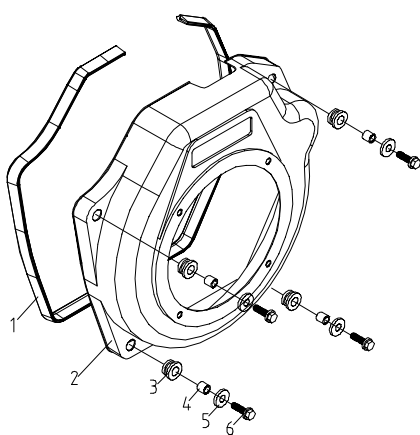
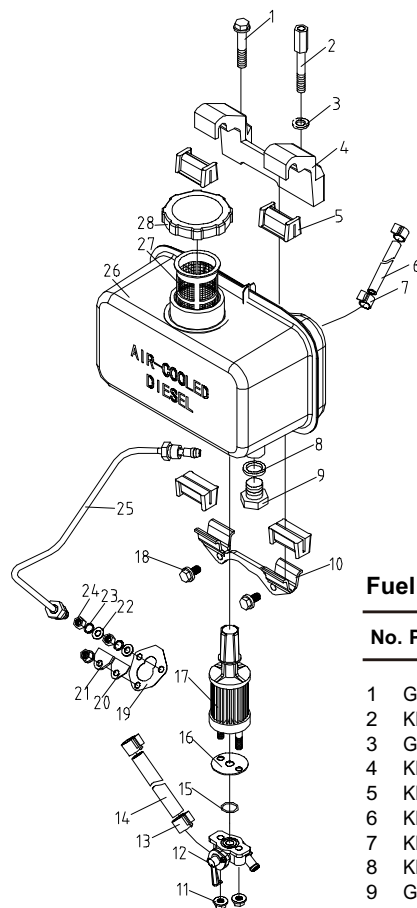


### Piston and connecting rod assy KM170F-04000

No. Part No.	Description	Qty.	
1	KM170F-04100T	Piston ring	1
2	KM170F-04003	Piston	1
3	KM170F-04004	Piston pin	1
4	GB/T893.1-1986	Retainer 19	2
5	KM168F-04200T	Connecting rod	1
6	KM168F-04005	Connecting rod bearing bush	2

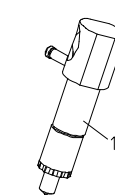
### Fuel system KM168F-10000

No. Part No.	Description	Qty.	
1	GB/T5789-1986	Bolt M8×45	1
2	KM168F-10003	Tightening bolt for upper bracket of fuel tank	1
3	GB/T97.1-2002	Washer 8	1
4	KM168F-10001	Upper bracket of fuel tank	1
5	KM168F-10002	Shock pad	4
6	KM168F-10012	Oil returning pipe	1
7	KM168F-10013	Oil returning pipe clamp	2
8	KM168F-10008	Oil drain bolt gasket	1
9	GB/T5786-2000	Bolt M12×1.25×14	1
10	KM168F-10600	Lower bracket of fuel tank	1
11	GB/T6177.1-2000	Nut M6	3
12	KM168F-10400	Fuel tank switch	1
13	KM168F-10011	Clamp	2
14	KM168F-10009	Fuel supply pipe	1
15	KM168F-10017	O seal ring 14×1.6	1
16	KM168F-10007	Fuel filter gasket	1
17	KM168F-10300	Filter element	1
18	GB/T5789-1986	Bolt M6×14	1
19	KM168F-10014	Fuel injection pump	2-3
20	KM168F-10016	Seal gasket	1
21	KM168F-10015	Seal plate	1
22	GB/T97.1-2002	Washer 6	2
23	GB/T93-1987	Washer 6	2
24	GB/T6170-2000	Nut M6	2
25	KM168F-10500a	High pressure fuel pipe	1
26	KM168F-10200	Fuel tank	1
27	KM168F-10004	Fuel filling strainer	1
28	KM168F-10100	Fuel tank cap	1



### Windscooper assy KM168F-17000

No. Part No.	Description	Qty.	
1	KM168F-17003	Shock absorption cushion	1
2	KM168F-17100	Windscooper	1
3	KM168F-17002	Shock absorption sleeve	4
4	KM168F-17001	Bushing	4
5	GB/T96.1-2002	Washer 6	4
6	GB/T5789-1986	Bolt M6×22	4

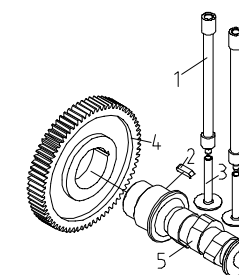
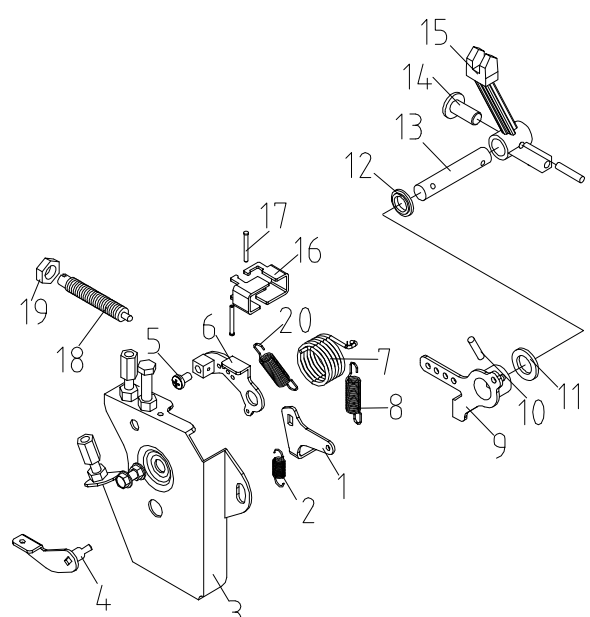


### Fuel injector assy KM170F-13000

No. Part No.	Description	Qty.	
1	KM170F-13000	Fue injector assy	1

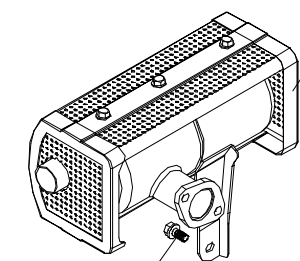
### Speed regulating and operation system KM170FY-11000

No. Part No.	Description	Qty.	
1	KM170FY-11301a	Oil throttle shift lever	1
2	KM168F-11006	Returning spring 1	1
3	KM170FY-11320	Steering lever bracket	1
4	KM170FY-11310	Steering lever	1
5	GB/T29.2-1988	Bolt M5×8	1
6	KM170FY-11330	Speed regulating lever	1
7	KM168F-11005	Returning spring 1	1
8	KM170FY-11007	Speed regulating spring	1
9	KM168F-11110	Speed regulating lever	1
10	GB/T117-2000	Pin 3×22	2
11	KM168F-11003	Washer	2
12	KM168F-11008	Lever shaft oil seal	1
13	KM168F-11102	Lever shaft	1
14	KM168F-11004	Speed regulating push disc	1
15	KM168F-11101	Fork	1
16	KM168F-11001	Flyweight	2
17	KM168F-11002	Flyweight pin	2
18	KM168F-11200	Fuel level controller	1
19	GB/T6173-2000	Nut M10×1.25	1
20	KM170FY-11009	Oil throttle tension spring	1



### Camshaft assy KM168F-06000

No. Part No.	Description	Qty.	
1	KM168F-06100	Valve push rod	2
2	GB/T1096-2003	Key 5×14	1
3	KM168F-06003	Valve tappet	2
4	KM170FS-06002	Camshaft timing gear	1
5	KM168F-06001	Camshaft	1

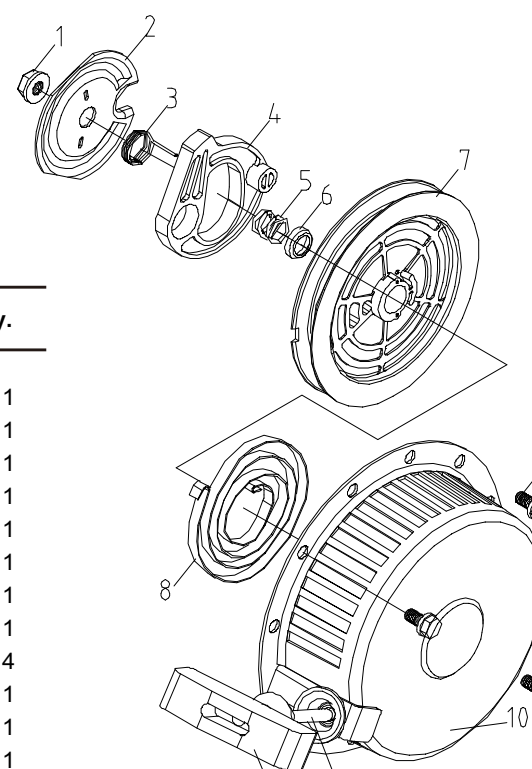


### Air exhaust system KM170FY-08000

No. Part No.	Description	Qty.	
1	KM170FY-08000	Muffler	1
2	GB/T5789-1986	Bolt M8×14	1

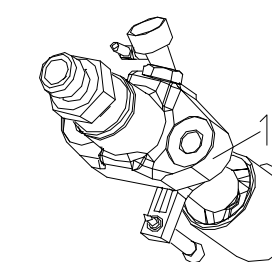
### Recoil starter assy KM168F-14000

No. Part No.	Description	Qty.	
1	GB/T6187.1-2000	Nut M6	1
2	KM168F-14006	Friction disc	1
3	KM168F-14005	Torsion spring	1
4	KM168F-14001	Ratchet wheel	1
5	KM168F-14002	Compression spring	1
6	KM168F-14011	Spring cover	1
7	KM168F-14012	Starting pulling plate	1
8	KM168F-14009	Spiral spring	1
9	GB/T5789-1986	Bolt M6×8	4
10	KM168F-14100	Shell	1
11	KM168F-14008	Starting rope	1
12	KM168F-14007	Starting lever	1



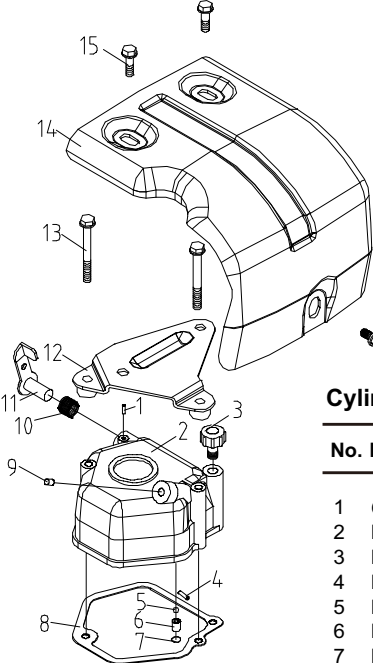
### Fuel Injection pump assy KM170F-12000

No. Part No.	Description	Qty.	
1	KM170F-12000	Fuel Injection pump	1



### Cylinder head hood assy KM170FY-03000

No. Part No.	Description	Qty.	
1	GB/T119.2-2000	Pin 3×16	1
2	KM168F-03001	Cylinder head hood	1
3	KM168F-03005	Fuel filling screw plug	1
4	KM168F-03008	Pin	1
5	KM168F-03006	Ball	1
6	KM168F-03007	Breather seat	1
7	KM168F-03009	O seal ring 12×1.9	1
8	KM168F-03003	Cylinder head hood gasket	1
9	KM168F-01021	Plug	1
10	KM168F-03004	Decompression spring	1
11	KM168F-03100	Decompression shaft	1
12	KM170FY-03200	Guard hood bracket welded	1
13	GB/T5789-1986	Bolt M6×65	2
14	KM170FY-03011	Guard hood	1
15	GB/T5789-1986	Bolt M6×12	3



### Lubrication system KM168F-09000

No. Part No.	Description	Qty.	
1	GB/T5789-1986	Bolt M6×12	3
2	KM168F-09003	Oil pump cover plate 1	1
3	KM168F-09006	O seal ring 34×1.8	1
4	GB/T119.2-2000	Pin 3×8	1
5	KM168F-09100	Oil pump	1
6	KM178F-09002	Oil pump driving gear	1
7	KM168F-09005	O seal ring 25×2.4	1
8	GB/T5789-1986	Bolt M6×14	1
9	GB/T5789-1986	Bolt M6×14	1
10	KM178F-09003	Oil inlet pipe	1

