

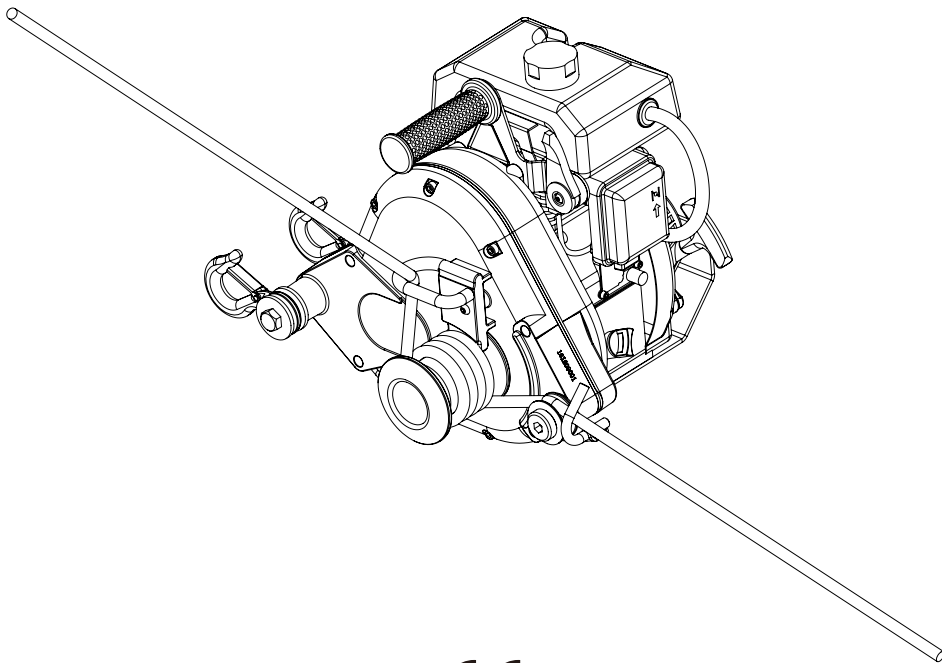


GAS POWERED WINCH

INSTALLATION AND OPERATION

MANUAL

EPGW6



IATF16949 : 2016



ISO 9001:2015

**TO PREVENT SERIOUS INJURY,
READ AND UNDERSTAND ALL WARNINGS
AND INSTRUCTIONS BEFORE USE.**

Due to continuing improvements,
actual product may differ slightly from the product described herein.

RQM003

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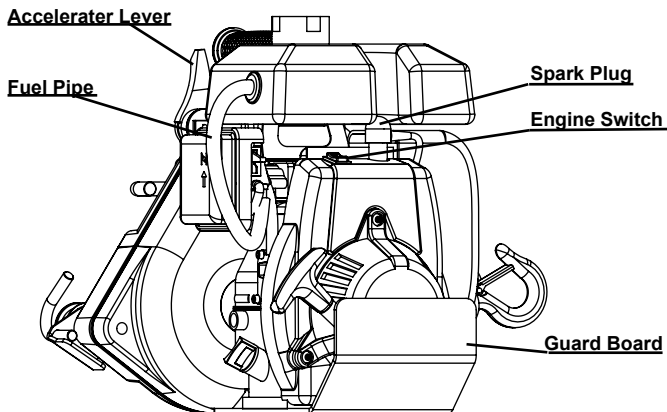
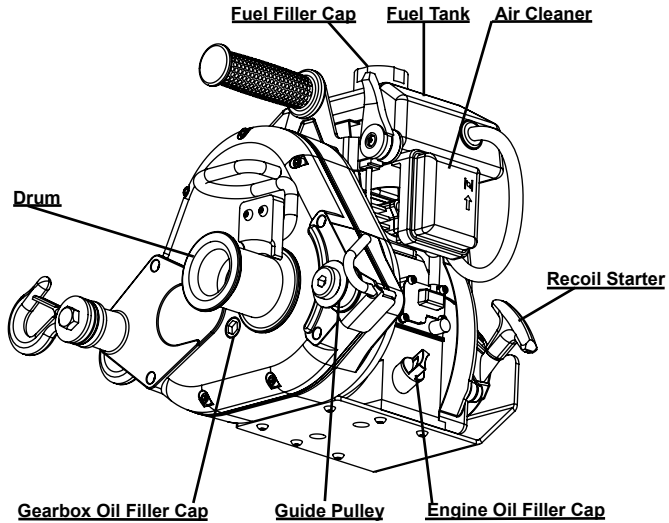
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INTRODUCTION

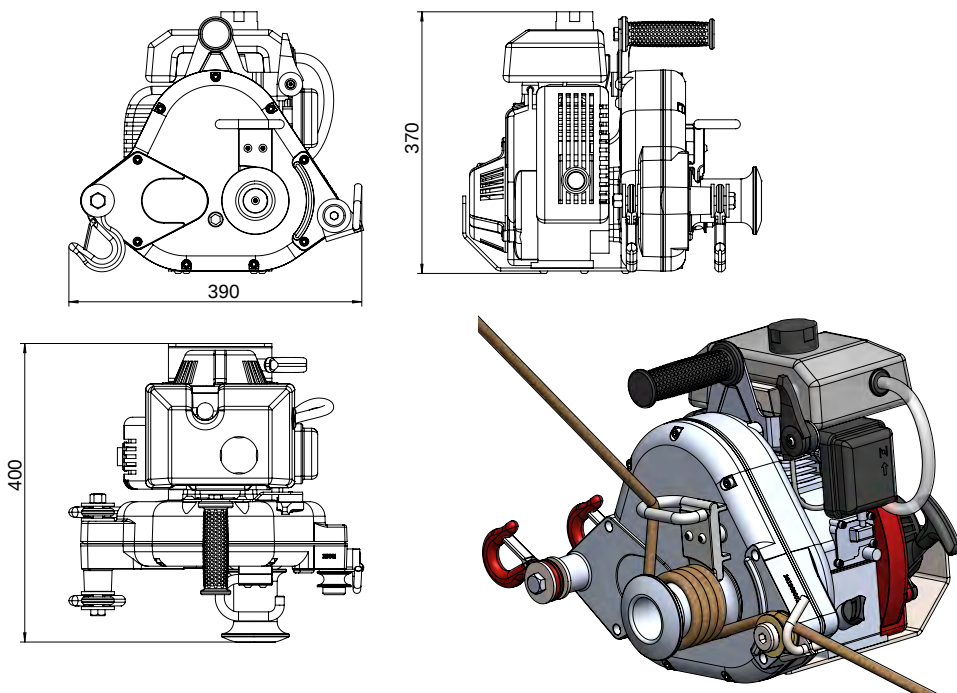
Thanks for purchasing this gas engine powered winch. This winch is designed for pulling non-rolling objects horizontally. Pulling angle should be within $\pm 45^\circ$.

This winch is EPA certified and CE certified.

Your safety and safety of others are our top concern. Read this manual carefully and follow the safety instructions in this manual.



WINCH SPECIFICATIONS & OVERALL DIMENSION



Specifications

Application	For pulling or lifting
Engine	144FE- 4-stroke, Max-power 1.5 Kw/6800 r/min, EPA certified
Net weight	18 Kg
Rated load	Single line-1000 kgs(2200 lbs); Double line-2000 kgs(4400 lbs)
Drum	Ø58 mm X L97mm
Line speed	10 m/min
Wire Rope	Synthetic rope, diameter from 12 mm to 16mm
Anchoring	Synthetic strap 50 mm×2 m
Duty type	Continuous running
Gear box	3-stage gear reduction system dipped in oil
Gear ratio	146 : 1
Brake type	Uni-direction clutch bearing
Sound rating	92 db

SAFETY WARNINGS & PRECAUTIONS

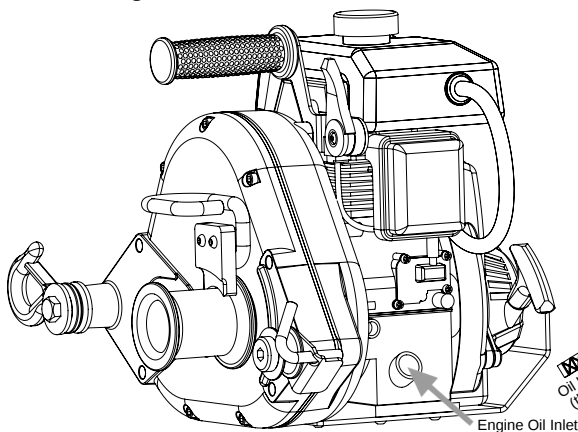
1. Do not operate winch under influence of drugs or alcohol.
2. Read manual before using this winch.
3. Always use heavy gloves when handling wire rope.
4. Stay clear of wire rope and keep others away when in operation or with load on wire.
5. Keep children away from working area, Never let children operate the winch.
6. Inspect winch and wire rope before each use. Do not use winch if wire rope or winch shows wear or damage.
7. Replace any parts as needed before using the winch.
8. Do not exceed the winch capacity. Always use this winch at or below its rated capacity for your safety and for better performance.
9. Do not use the winch to lift people or hoist loads over people.
10. Never come in between the winch and the load when operating.
11. Make sure the winch is fixed on a support (or a tree) properly that can hold the winch load.
12. Place towel or sandbag over Wire Rope while winch is in use.
13. Keep hands and fingers clear of Wire Rope, Wire Rope Guide, Hook and Drum during operation.
14. Keep 3 or 4 wraps of the wire rope on the drum when in operation.
15. The exhaust gas contains toxic carbonic oxide. Never use this winch in an enclosed area without proper ventilation.
16. Do not touch the drum immediately after operation as the drum becomes very hot and it will hurt your skin.

UNPACKING

When unpacking, check to make sure all parts are included. Refer to Assembly drawing and Parts List behind. If any part is missing or broken, please call your local distributors.

PREPARE ENGINE READY FOR USE

1. To fill Engine oil



Fill the engine with a maximum of 0.25 liters of SAE 10W-30 API oil. Check oil lever with the engine on a level surface. Screw out Oil Level Gauge(threaded plug). Check the oil trace on the gauge.

The maximum oil level should not be over the "MAX" mark on the gauge. If the oil level is below the "MAX", add oil in proper volume (fig.1).

Fig.1

2. To fill Gas

Fill the gas tank with unleaded gas(petrol). Do not mix oil into gas tank(fig.2). Do not overfill. Wipe up spilled fuel before starting the engine.

Gas(petrol) category:

#93 - in China,
#87 regular - in USA,
EURO95 - in Europe.

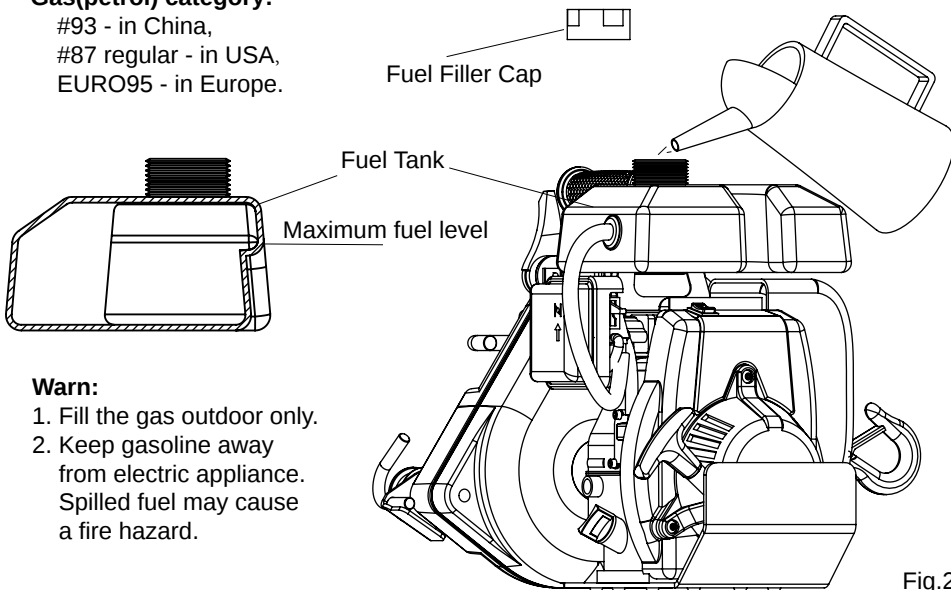


Fig.2

Warn:

1. Fill the gas outdoor only.
2. Keep gasoline away from electric appliance. Spilled fuel may cause a fire hazard.

3. To pump air-discharger

After filling gas in engine, pump air-discharger by pushing and releasing on the plastic cover of the air-discharger till the air in the fuel line is fully pumped out(fig.3).

WARNING:

If the air remains in the fuel line, the engine can not be started up as the air will block the fuel to flow into engine cylinder.

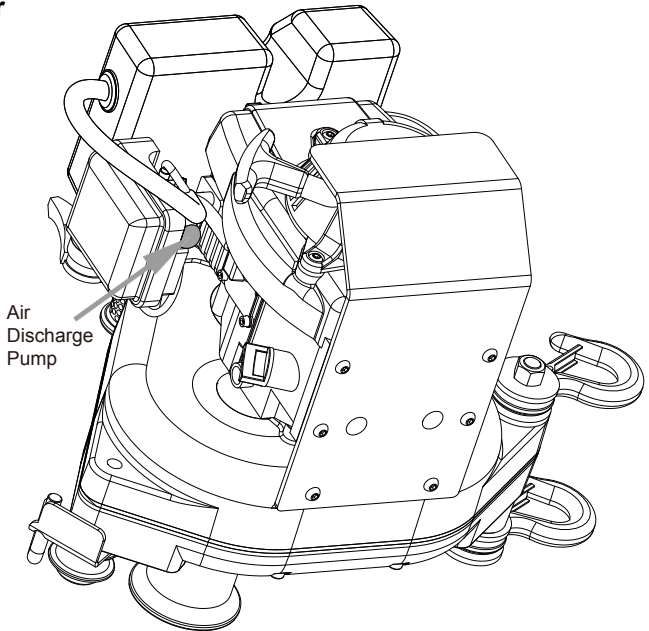


Fig.3

4. To start a cold engine

Move the Choke Lever to CLOSED position.

To restart a warm engine

Move the Choke Lever to OPEN position. Fig.4

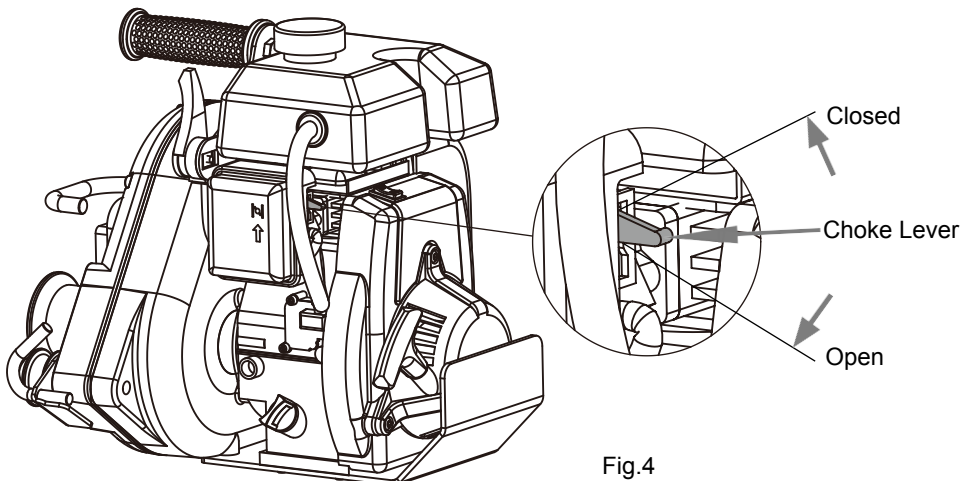


Fig.4

PREPARE ENGINE READY FOR USE-continue

5. Position Accelerator Lever

To turn Accelerator Lever at the position between 20°-30° as shown in fig.5 below to meet your desired engine speed.

Note :

Turning the Accelerator Lever downward makes engine speed faster. On reverse, speed will be lower.

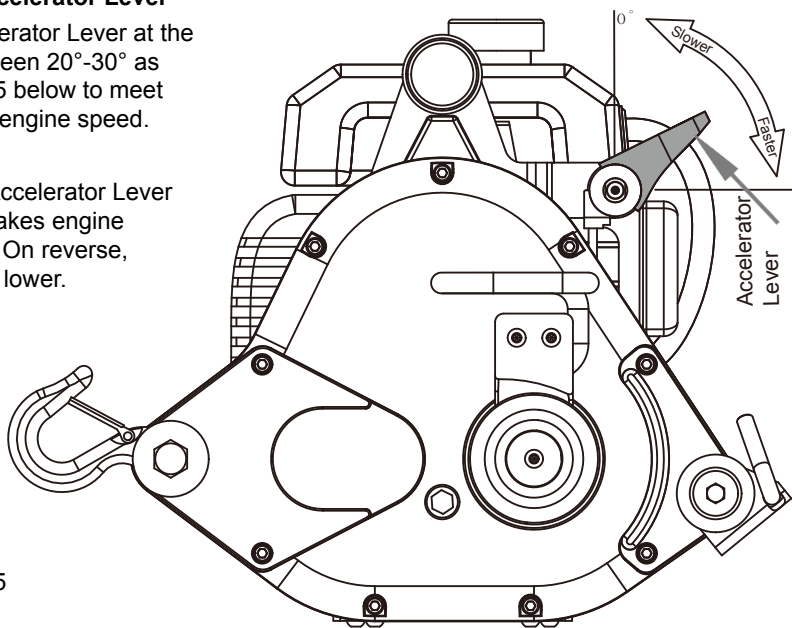


Fig.5

6. To start engine

* Pull Recoil Starter in the direction as shown on fig.6.

* If you pull Recoil Starter vertically(fig.7), the rope will rub the plastic cover. The rope or the plastic cover may be damaged.

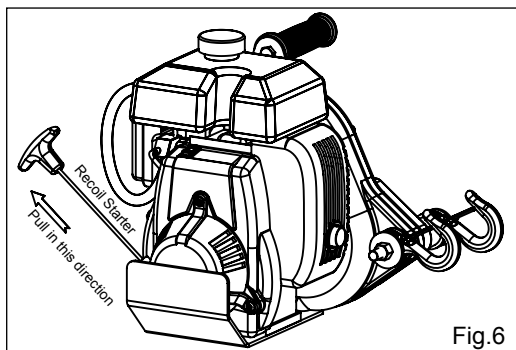


Fig.6

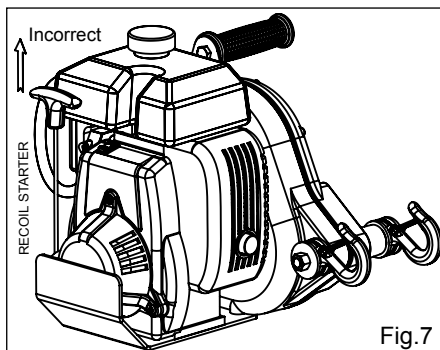
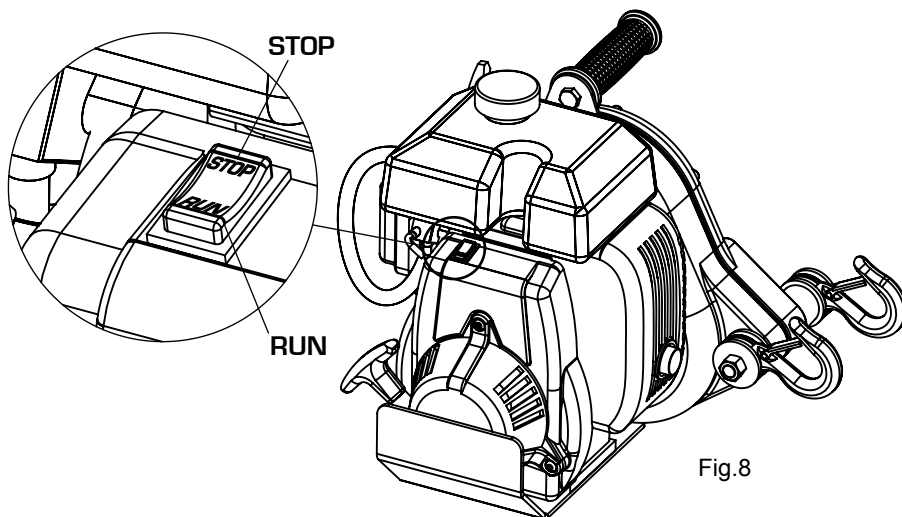


Fig.7

To run the engine for 5 minutes with no load before first pulling operation.

7. To stop engine

To switch off the engine by pressing “STOP” button. The engine will stop. By releasing “STOP” button, the switch will return back to “RUN” position automatically(fig.8).



Note:

The running engine will stop automatically if the engine oil level is too lower.

To restart up the engine, the engine oil has to be filled to required level(refer to fig.1 on page 4).

WINCH INSTALLATION & OPERATION

1. Rope Installation

1.1 Rope

Use a low stretch, double-braided polyester rope with a diameter of 3/8" - 1/2".

Donot use 3-strand polyethylene or polypropylene rope.

Polyethylene or polypropylene has feature of high elasticity and low melt point, which is dangerous to use.

1.2 How to make a safety knot at the rope end

To tie the rope directly to a load you intend to pull or to fix a hook to the rope, we recommend to make bowline knot to connect the load or to a hook(fig.9).

1.3. Hooks recommend to use

Select what you needed according to the rope or chain you use in winching opeartion(fig.10. No.1-chain + grab hook with safety pin; No.2-grab hook; No.3-eye hook; No.4-shackle).



Fig.9

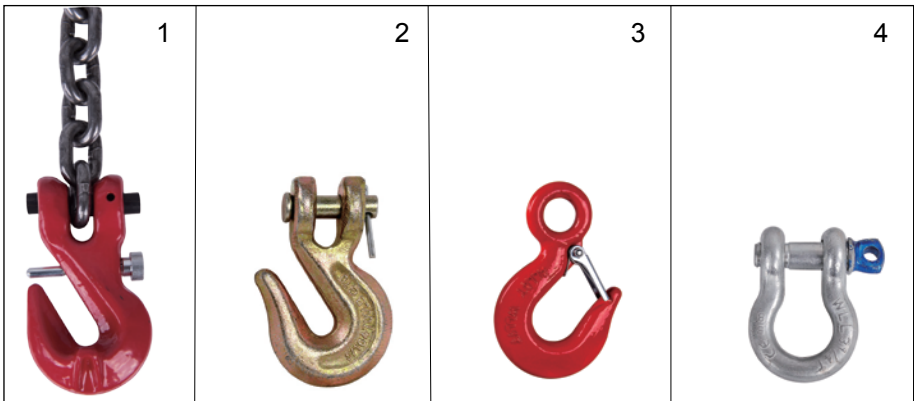


Fig.10

2. Rope maintenance

Inspect the rope before use. If it shows any sign of damage, such as strands cut, excessive worn, replace it. If the rope is dirty, wash and clean it. Dirty rope will deteriorate faster and will cause premature worn on the parts the rope contacts and moves.

WINCH INSTALLATION & OPERATION-continue

1. To anchor winch with polyester sling(included with the winch)

Option 1.

The winch is anchored to a fixed support(such as a tree or a pillar) using a polyester sling. The rope end is tied to the object(load) you are to move. The object is moving towards the winch when you pull the rope.

Option 2.

The winch is anchored to the object(load) you are to move using a polyester sling with the rope end is tied to a fixed support(such as a tree or a pillar) . The winch and the object are pulled towards the support.

This option is a good choice when you need to guide the object(load) while you are winching.

Go round anchoring support(such as a tree, or a pillar) with the sling. Put each loop at both ends of the sling into 2 safety hooks on the winch(fig.11).

Place the winch in line with the object(load) you are to move. When the winch is under tension, it will try to align itself with the load. You may have to adjust anchoring as the friction between the sling and the support may preventing it from self-aligning.

CAUTION: DO NOT ANCHOR A COMPLETE WRAP OF THE SLING ROUND THE SUPPORT(A TREE OR A PILLIAR). THIS WILL PREVENT THE WINCH FROM SELF-ALIGNING(fig.12).

Fig.11

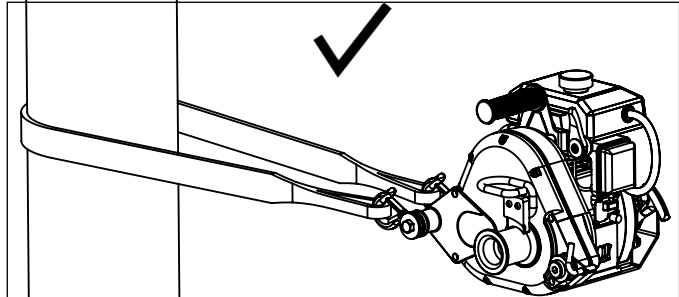
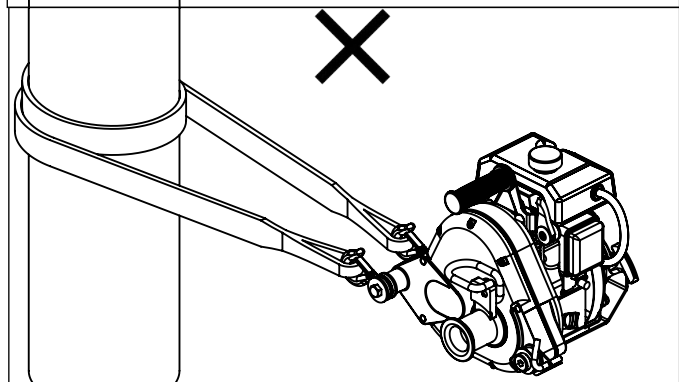


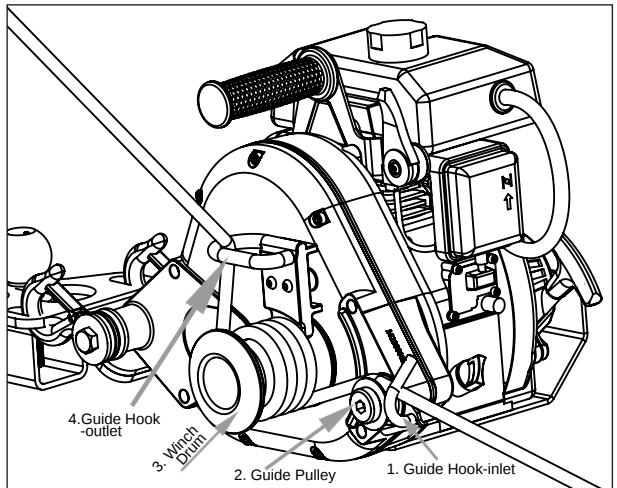
Fig.12



2. To wrap the rope on to winch drum(fig.13)

- 1) Start the engine and let it run idle for 30 seconds.
- 2) String the rope through the Guide Hook-inlet(fig.13-No.1) and the Guide Pulley (fig.13-No.2 and under the Winch Drum(fig.13-No.3).
- 3) Wrap the rope round the drum 3 - 4 times.
- 4) Pull the rope through Guide Hook-outlet(fig.13-No.4).
- 5) Stand about 1 meter(3ft) away from the winch and pull the rope gently and horizontally till you feel tension rising on the rope.
- 6) Check at the above setup and make sure the winch anchoring the the rope Guide Pulley-inlet are aligned with the rope.
- 7) Check the rope that does not rub against any objects along the path.
- 8) Turn Accelerator Lever down(increase the engine power) and start to winch.

Fig.13



WARNING:

Check once again the winch position, rope condition, reliability of the support(a tree or a pillar), rope knots, hooks or shackles before starting winching operation to prevent personal injury or property damage.

3. winching

While wincing, stand away (about 1 meter, 3in.) from the winch so that you can watch both the winch and the object (load).

Pull the rope horizontally.

The tension you exert on the rope can keep the winch level (fig.14).

Fig.14



WINCH INSTALLATION & OPERATION-continue

WARNING:

Do not wrap the rope round your hands or your body! Also be aware of the rope accumulating in front of you. Make sure your feet do not get tangled in the rope. Make sure the rope does not cross over the drum during winching. If it happens, release the tension on the rope and stop the engine immediately. Uncross the rope on the drum.

4. If the rope slips

If the rope slips on the drum while winching, add one more wrap(maximum 4 wraps total on the drum). When the winch reaches its maximum capacity, the engine stalls. You have to reset up anchoring by adding a pulley or rocking the load.

5. To rock the load

Pull the rope till the engine comes close to stall. Then release the tension. Pull the rope again and repeat this process as needed.

CAUTION:

Be careful when rocking since it will generate heat and will reduce the strength of the rope and wear the rope quickly.

WARNING:

If the load does not move when winching, it may be the load is over the winch load capacity. But often the case is using very long rope.

6. How to pause while winching

Slowly release the tension on the rope and let it slip on the winch drum.

CAUTION:

Do not let the rope slip for more than a few seconds on the drum while in tension. The heat created by the friction could melt or damage the rope.

7. How to maintain a load without releasing tension

You may maintain tension on the end of the rope either by holding it or attaching it.

- 1). Shut the engine off.
- 2). Wrap the rope twice around the Guide Hook-outlet(fig.15)
- 3). Tie two half-knots around the rope hook(fig.16)

Fig.15



Fig.16



8. How to resume winching

You must release some tension before restarting the winch engine. Untie the two half-knots. Let some of the rope slip through your hands to release some tension. While the rope with on hand, start the engine by pulling Recoil Starter and turn the Accelerator Lever down. Now you can resume winching.

9. Stopping the winch

- 1). Release tension gradually to lower the winch gently to the ground.
- 2). Turn Accelerator Lever to idle.
- 3). Press "STOP" button on Engine Switch. The engine will stop immediately.
Refer to fig.8 on page 7.

For your safety, service and maintenance should be performed regularly by a qualified technician.

Before maintenance, the engine should be shut off.

1. Cleaning

Once your job is done, you should clean and dry the winch.

Caution:

Inspect the winch hook, rope, knots and polyester sling to detect any damage or signs of wear.

Periodically, remove the winch drum and clean around the shaft. Accumulated debris can damage the shaft seal. Apply oil to prevent corrosion.

2. Lubrication

The gear box is lubricated at the factory and should not require additional lubrication or maintenance. If there is appearance of a leak, check oil level by placing the winch on a level surface and remove the oil plug. Lean it toward you. Some oil should leak out of the hole. If needed, you can add type SAE80W90EP gearbox oil.

3. Change engine oil

Engine oil should be replaced every 25 hours of use in heavy and harsh work condition.

4. Spark Plug

Inspect the spark plug(including sealing washer and electrode). Replace it if it is damaged or badly fouled.

Recommended spark plug: TOUCH A5RTC

5. Spark arrestor

Since your winch is equipped with the optional spark arrestor, you must clean it every one hundred(100) hours use. Take the spark arrester out of the exhaust pipe. Use a brush to remove carbon residues from the spark arrester screen. Be careful not to damage the screen and replace it if it is damaged.

6. Air cleaner

Remove the air cleaner cover and inspect the filter element. Clean or replace the dirty filter element. A dirty filter element will restrict air flow to the carburetor, and will reduce the engine power. A damaged filter element will allow dirt to enter the engine causing quick damage to the engine. Cleaning the filter element after every use will prolong engine service life and improve engine performance.

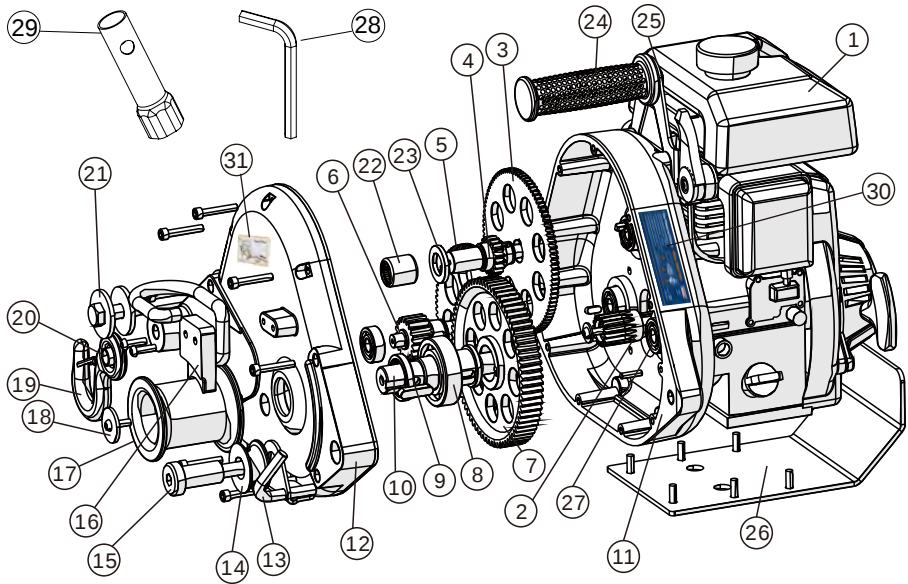
Caution:

More difficult maintenance job should be handled by a trained professional technician or mechanic.

7. Storage

Always store your winch in a dry and well ventilated storage house.

ASSEMBLY DRAWING AND PARTS LIST



Parts List

Part No.	Description	Qty	Part No.	Description	Qty
1	Gas Engine 144F	1	17	Drum	1
2	Small Gear-input	1	18	Washer	1
3	Big Gear-input	1	19	Eye Hook	2
4	Gear Shaft-intermediate	1	20	Bush-hook	2
5	Big Gear-intermediate	1	21	Retainer-hook	4
6	Gear Shaft-output	1	22	Needle Bearing-HFL2026	1
7	Big Gear-output	1	23	Retainer-needle bearing POM	1
8	Ball Bearing 6206	1	24	Handle Bar	1
9	Seal Ring FW030042	1	25	Mounting Bracket-Handle	1
10	Drive Shaft	1	26	Guard Board	1
11	Gear Housing-half A	1	27	Ball Bearing 6201	4
12	GearHousing-half B	1	28	Hex-Wrench CR-V 10 mm	1
13	Rope Guide Hook-inlet	1	29	Socket Spanner(for Ignition Plug)	1
14	Guide Pulley	1	30	Warning decal	1
15	Bolt Pin-guide pulley	1	31	Rope Guide decal	1
16	Rope Guide Hook-outlet	1			

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