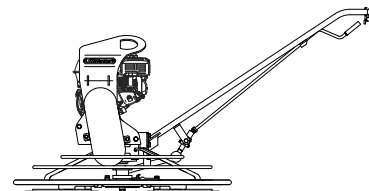




POWER TROWEL

MPT-36H



INSTRUCTION MANUAL

en



<http://www.mikosas.com>

702-00601



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1. Preface

- This instruction manual describes the proper operation, basic inspection and maintenance procedures of Power Trowel Model MPT-36H. Please read this instruction manual before use in order to maximize the excellent performance of this machine and make your work more efficient and effective.
- After reading the manual, please keep it in a handy location for easy reference.
- For the handling the engine, please refer to the separate engine instruction for use.
- For inquiries about parts repair, partslist, service manual, or repairs, please contact the store where you purchased, the product, our sales office, or the Mikasa Parts Service Center. For partslist, please visit our homepage at:
<http://www.mikasa.com/english/> where you can access Mikasa WEB partslist.

Illustrations and Figures in this manual may be different from the machine you actually purchased due to design changes and other reasons for improvement.
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2. Applications, Warnings, Structure and Power Transmission

APPLICATION:

Power Trowel is used for the purpose of finishing concrete surface, by rotating four blades around surface equally and flatly on the process of concrete surface hardening.

WARNING OF RISK:

Do not use machine except finishing the surface of concrete on the process of hardening.

Do not release your hand freely in operation. Serious accident may occur by rotating handle freely. Power Trowel starts self-turning from the body as the center axle, until engine speed slows down enough and the clutch is disengaged.

Operate machine after confirming no other worker stands in the range of handle turning.

Power Trowel can move every direction(forward, backward, turning right and left) by operator's handling, and keep any other worker away from machine except operator.

Exposed trowel blades turning in operation are also dangerous.

Be careful in touch with or to handle its worn blade for edge sharpness like a knife.

STRUCTURE:

Worm Reduction Gear is located under Engine Base. Input Shaft of Worm Reduction Gear is connected to Output Shaft of Engine through Centrifugal Clutch and V-belt.

And Output Shaft of Worm Reduction Gear is connected to Blade Base to fix 4 pieces of Blade Arms with Blades.

Throttle Lever and Shifter Handle are fixed to Handle to operate machine, and Engine Stop Switch is also located to Blower Housing in Engine.

POWER TRANSMISSION:

Output Shaft of Engine is connected to Input Shaft of Worm Reduction Gear through Centrifugal Clutch and V-belt.

Rotating power is being transferred to Blade Axle by changing the direction of rotating and reducing R.P.M.

Blade Base fixed to Blade Shaft is attached with Blade Arm and Blade, of which revolution is adjusted by Throttle Lever of Engine.

Blade angle can be adjusted through Slide Arm and Slide Pulley, by turning Shifter Handle.

3. Warning Symbols

The triangle marks () used in this manual and on the decals on the machine, are warning symbols. Please follow these precautions.



Warning Symbols indicating personnel hazards.

 **DANGER**

Extremely Hazardous. If the warning is not followed, it is likely to result in serious injury or death.

 **WARNING**

Hazardous. If the warning is not followed, it is likely to result in serious injury or death.








 **CAUTION**

Potential Hazard. If the warning is not followed, it may result in injury.


precautions (without  mark)

4. Safety Precautions

4.1 General Precautions

 WARNING	<ul style="list-style-type: none"> Do not operate the machine If you do not feel well due to overwork or illness. If you are taking any medicine. If you are under the influence of alcohol. 	
 CAUTION	<ul style="list-style-type: none"> Read this manual carefully and handle the machine as described to ensure safe work. For details about the engine, refer to the separate manual for the engine. Decals on the machine (operation method labels, warning labels, etc.) are very important for your safety. Keep the machine clean so that the decals can be read all the time. Replace a decal if it become illegible. Make sure you understand the structure of the machine well. For safe work, always wear protective gear (helmets, safety shoes, ear plugs, etc.) and work in appropriate clothes. Always check the machine before your work to make sure it is in normal condition. It is very dangerous if children come into close contact with the machine. Have the utmost concern about how and where to store the machine. Keep it in a designated place. Mikasa does not accept any responsibility to accidents caused by remodeling or rework done on the machine. 	   


4.2 Location and Ventilation Precautions

<p>⚠ CAUTION</p>	<ul style="list-style-type: none"> ●CHECK WORKING CONDITION <p>Always keep away from workers and obstacles and be sure to be safety when starting and operating machine.</p> <p>For working in slab concrete,there are steel bars come up unexpectedly.It is very dangerous accident or serious damage if the rotating blade hits prongs lower than Guard Ring.</p>	
<p>⚠ DANGER</p>	<ul style="list-style-type: none"> ●CHECK WORKING LOCATION <p>The exhaust gas from the engine contains toxic gases such as carbon monoxide and is very hazardous.</p> <p>Do not run the machine in an unventilated location such as indoors or inside a tunnel.</p> <p>During operation, keep its exhaust gas away from operator as well as other workers nearby.</p> <p>The exhaust outlet of machine keeps minimum 1m far from house wall and facility.</p> <p>Unventilated operation may cause serious addiction and accident for workers nearby.</p>	




4.3 Precautions Before Starting

<p>⚠ CAUTION</p>	<ul style="list-style-type: none"> ●Check function and looseness for safety work before operation. ●Check each part such like Covering, Safety parts, Throttle Lever, Stop Switch, etc. ●Check fuel and engine oil. Tighten bolts and nuts securely. 	
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4.4 Refueling Precautions

<p>⚠ DANGER</p>	<p>Stop engine for refueling,and wait until it cools down.</p> <p>Take the machine to a clear flat location without any combustibles nearby.</p> <p>Keep the level of fuel added. Be careful not to spill the fuel. Wipe well if any spill occurs.</p> <ul style="list-style-type: none"> ●Do not fill to the rim due to potential spillage. ●After adding the fuel, tightly close the tank cap. 	
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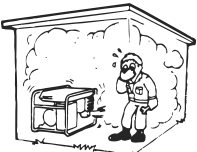
4.5 Precautions During Work

<p> DANGER</p>	<ul style="list-style-type: none"> ● When starting engine, keep Throttle Lever at idle position. Do not put your foot under Guard Ring anytime during operation. Use machine only by skillful operator or his assistance. Watch your foot, and keep stable stance anytime to make operation in well balance. ● After starting engine, do not keep your hand away from machine handle. If released your hand and centrifugal clutch was not enough disconnected, machine handle rotates itself from the center of machine and it is very dangerous. If operator is apart from machine or move machine for transportation, be sure to stop engine. ● Touching with rotating parts (Blade,V-belt,etc.) is very dangerous. Be careful for the operation at inclined area, which becomes difficult in control. In the operation at steep area,it may cause engine burning. ● Fire Risk Do not put the dangerous substances such like grease,celluloid,explosive,etc.,and flammable ones like paper and lumber. Damp a fire ignitable. 	
<p> CAUTION</p>	<ul style="list-style-type: none"> ● Burn Injury Risk Be careful of burn injury risk keeping away from the parts at high temperature, especially engine itself and muffler just after stopping engine and in operation. ● Stop Operation When Trouble Happens If you are aware of machine conditions being worse or in trouble, stop operation immediately to check and repair. Fire accident may happen. ● Stop Engine Be sure to stop engine if you are apart from machine or transport machine to other place. 	

4.6 Transportation and Storage Precautions

<p> WARNING</p>	<ul style="list-style-type: none"> ● Stop engine during transportation. ● For lifting, use only one point hoisting hook, and do not lift at any other part. ● Use a sufficiently strong wire rope. ● During transportation, fix fuel tank cap and plug for engine oil to avoid from leakage. Close fuel cock, and drain fuel for safety transportation. ● Securely fix machine to prevent it from moving or falling during transportation. 	
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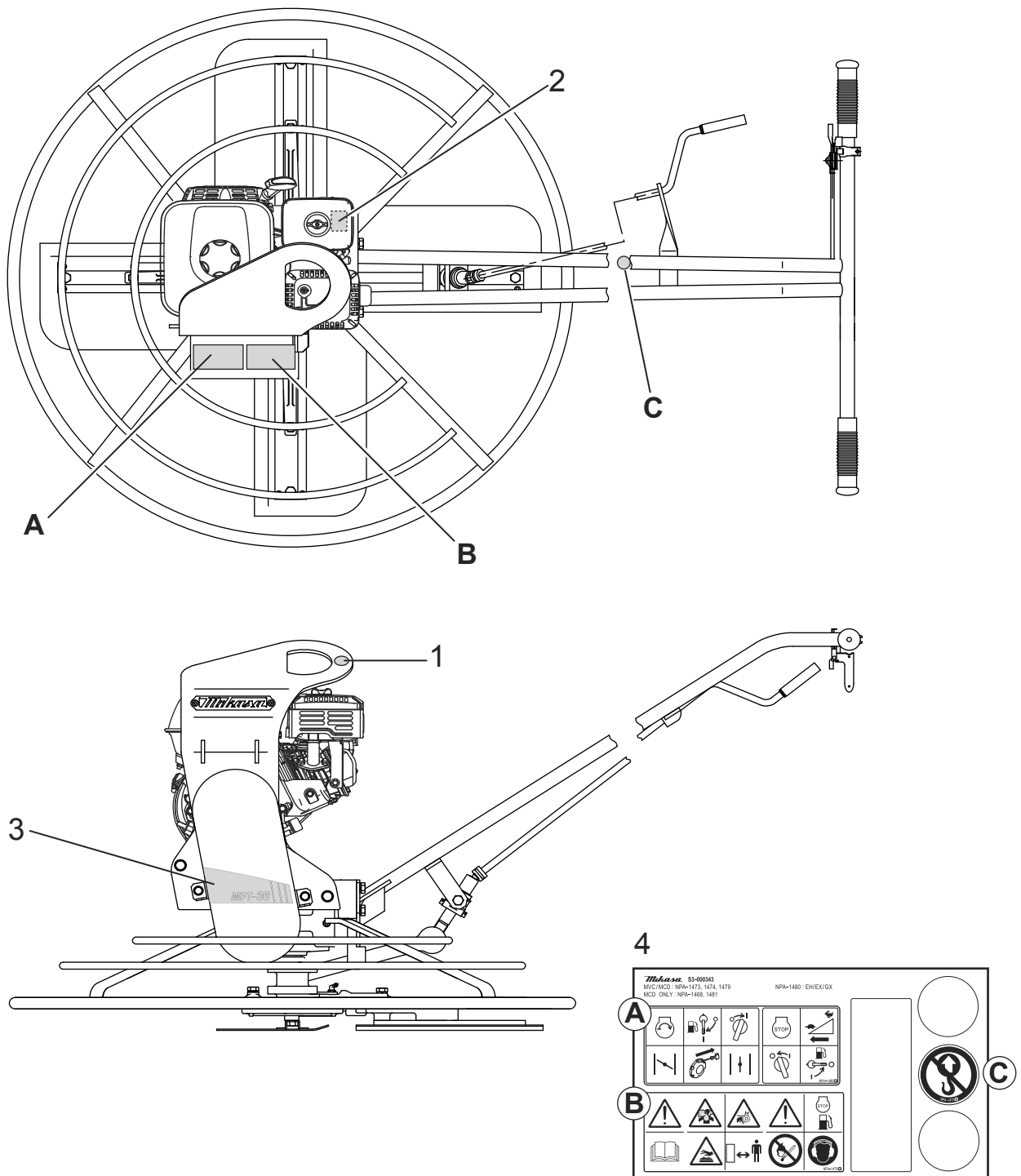
4.7 Maintenance Precautions

<p> WARNING</p>	<ul style="list-style-type: none"> •Read Instruction Manual or Service Manual. Before inspection and maintenance, read Instruction Manual or Service Manual thoroughly, and take necessary steps accordingly with thorough understanding of the way of maintenance. •Periodical Inspection Appropriate maintenance is required to ensure safe and efficient operation. Always pay attention to the machine's conditions. If they are not maintained properly, it might result in a serious accident. •Replace, Inspection and Maintenance After Engine Stops. Stop engine first, and then take necessary step to replace blade or to inspect & maintain machine. Do not touch with hot and heating parts to avoid burning injury. •Waste Disposal Do not dispose engine oil without permission, which causes destruction of environment. Waste Disposal must be followed to the regulation specified. 	  
<p> DANGER</p>	<ul style="list-style-type: none"> •Clean-up Parts For fire risk, use flame-resistant wash oil. Organic matter like gasoline may have ignitable risk. •Ventilation Precautions Do not run machine in an unventilated location or indoors. The exhaust gas, fuel, wash oil and coating are very hazardous if ventilation failed. Exhaust gas poisoning may lead to fatal accident. 	

4.8 Labeling Position

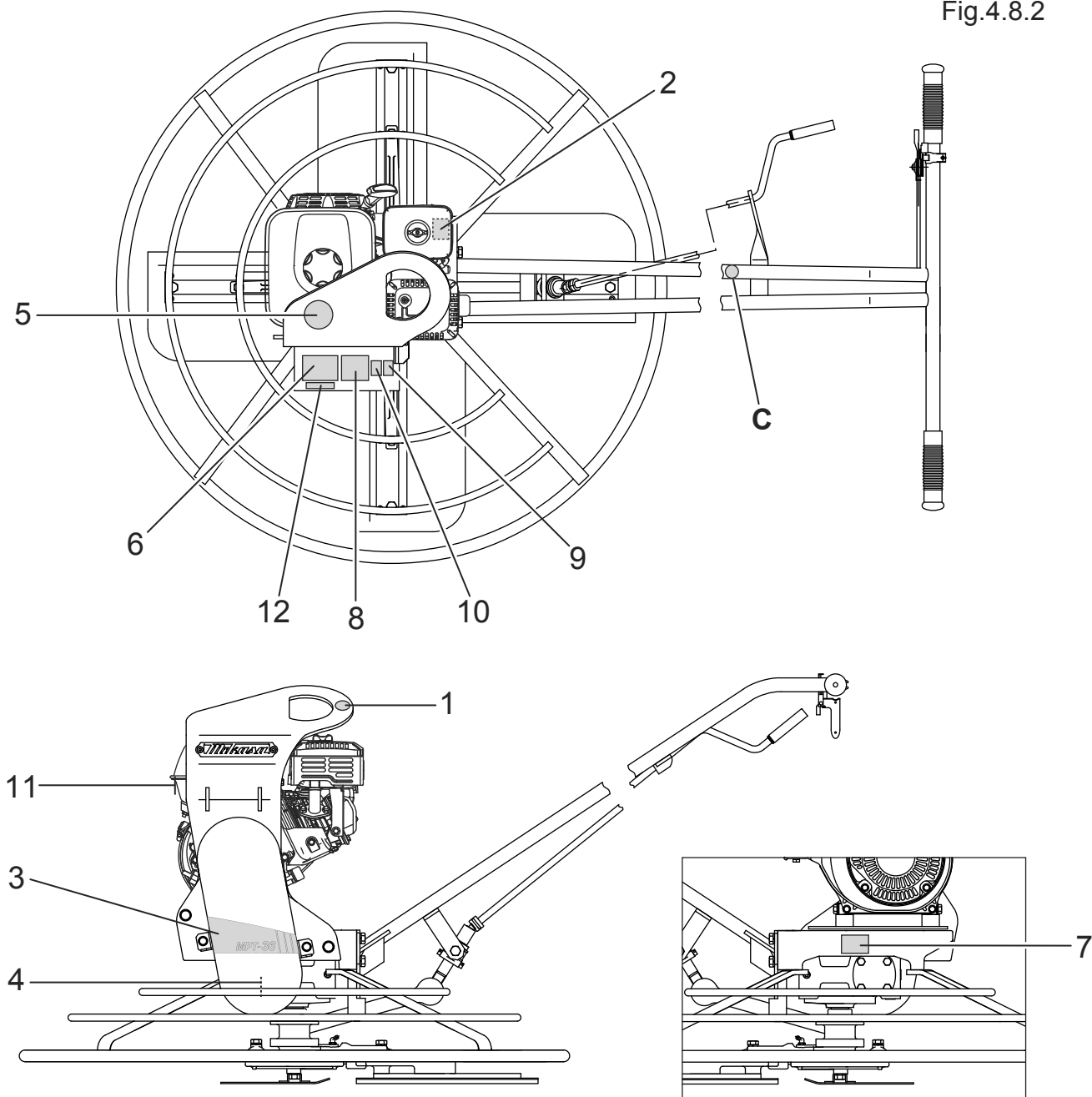
Standard area

Fig.4.8.1



No.	PARTS NO.	PART NAME	REMARKS
1	9202-14740	DECAL,LIFTING POSITION	NPA-1474
2	9202-20860	PLATE, SERIAL NO./MPT-36H	NPA-2086
3	9202-20320	DECAL, MODEL MPT-36(OR)	NPA-2032
4	9209-00090	DECAL,SET/MVC-MCD/EXP,EU	S3-000343

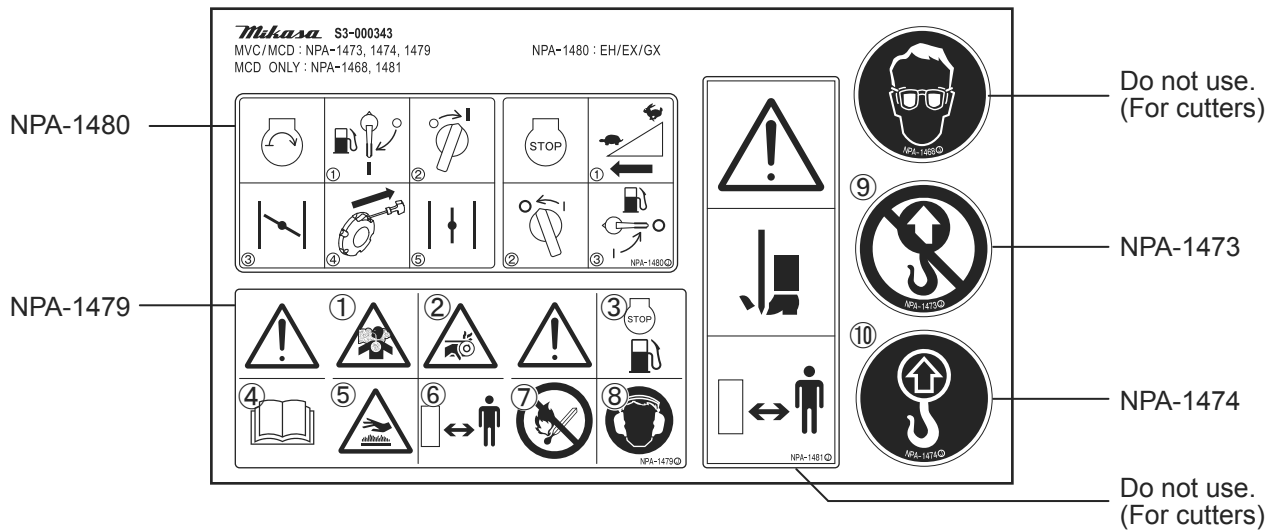
Fig.4.8.2



No.	PARTS NO.	PART NAME	REMARKS
1	9202-14740	DECAL,LIFTING POSITION	NPA-1474
2	9202-20860	PLATE, SERIAL NO./MPT-36H	NPA-2086
3	9202-20320	DECAL, MODEL MPT-36(OR)	NPA-2032
4	9201-00930	DECAL, OIL LEVEL	NP-93
5	9202-03330	EAR PROTECTION LABEL	NPA-333
6	9202-00610	DECAL, CAUTION/MPT-36L	NPA-61
7	9202-00620	DECAL, GEAR OIL/MPT-36L	NPA-62
8	9202-03290	DECAL, CAUTION	NPA-329
9	9202-06290	DECAL,CAUTION(MANUAL/EXP	NPA-629
10	9202-06280	DECAL, DANGER	NPA-628
11	9202-02930	DECAL, SWITCH-ON	NPA-293
12	9201-04940	DECAL, V-BELT /A-30	NP-494

4.9 Description of Symbols used as Warning Label

Standard area



- ① **Danger: poisonous exhaust gas**
Carbon monoxide poisoning may occur if the exhaust gas is inhaled. Do not operate the machine in a poorly ventilated area.
- ② **Be careful not to get caught in the rotating parts.**
During operation, be careful not to have your fingers, body, clothes, etc. come in contact with the rotating parts such as the V-belt and clutch.
- ③ **Refueling Hazard.**
Don't fill the fuel tank while the engine is running or hot.
- ④ **Read the manual carefully.**
Always read the operation manual and have good understanding of operation before your work.
- ⑤ **Be careful not to get burned.**
Accidental burn may occur if you touch the hot parts (engine, muffler, etc.) during operation or immediately after the machine stops.
- ⑥ **Be careful not to approach danger source.**
During operation, Be careful not to approach hot parts and rotating parts.
- ⑦ **Fire hazard**
Stop the engine when refueling. Fire may occur if a flame is near the tank fuel port.
- ⑧ **Danger of hearing damage caused by noise**
Always use ear plugs while operating the machine.
- ⑨ **Lifting by the handle is prohibited.**
Due to a falling risk, do not lift the machine by the handle.
- ⑩ **Lifting position.**
For lifting, use only one point hoisting hook, and do not lift at any other part.

Starting, and stopping

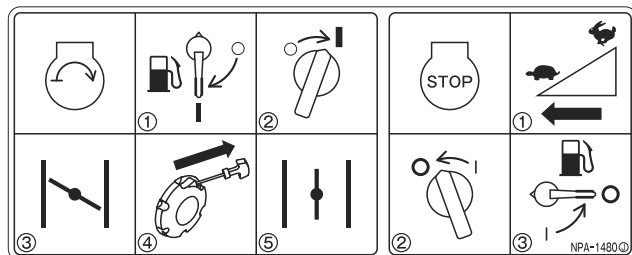
P/N 9209-00090 DECAL, SET /MVC, MCD /EXP, EU

START

- ① Open Fuel Cock to start
- ② Turn Stop Switch to "I"(ON) position
- ③ Close Choke Lever
- ④ Pull Recoil Starter to start
- ⑤ Return Choke Lever to open

STOP

- ① Return Throttle Lever fully until "O"(OFF) position to stop work
- ② After cooling down enough, stop the engine to move Stop Switch to "O"(OFF) position
- ③ Close Fuel Cock at the end



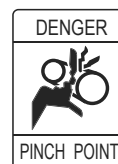
The United States and Canada for the specification



Ear protection.
In a start of a machine,
please do ear plugs by
all means.



Read owner' s manual.
read an instruction manual
before a start by all means,
and please understand
enough operation contents.



Pinch point.
do not touch moving part
carelessly because it
(clutch,pulley,V- belt) is
danger.



(1)Hot muffler

Do not touch the muffler and its surrounding area.

(2)Danger: poisonous exhaust gas

Carbon monoxide poisoning may occur if the exhaust gas is inhaled. Do not operate the machine in a poorly ventilated area.

(3)Read operation manual

For safe operation, always read the operation manual before use.

(4)Fire, open flame and smoking prohibited.

(5)Fire hazard

Stop the engine when refueling. Fire may occur if a flame is near the tank fuel port.

Explanation of other handling attention signature boards

No	PARTS No.	PART NAME	REMARKS
6	9202-00610	DECAL,CAUTION	NPA-61

- Set the speed control lever on the SLOW position.
- Gear oil please use the following considerable article.
Equivalent of gear oil class2,No.5 (ambient temperature 0-32℃)
Equivalent of gear oil class2,No.5 (ambient temperature 33-50℃)
- Wash the blades and rotary parts with water before the adhering concrete

No	PARTS No.	PART NAME	REMARKS
7	9202-00620	DECAL,GEAR OIL	NPA-62

Attention on gear oil lubrication

When I oil it, I take off a plug for oil levels of the side before a worm gear case, and please put it till oil overflows.

No	PARTS No.	PART NAME	REMARKS
8	9202-03290	DECAL,CAUTION	NPA-329

- Read an instruction manual before start for security by all means.
 - Starting attention:Accele (a lever) idol position confirmation.
 - Contact attention to a turn department a blade. In particular it is danger guarding environs.
 - Pay attention to exhaust gas danger, ventilation.
 - High temperature attention, a muffler.
 - At the time of refueling, please stop an engine. (Fire strict prohibition)

5.Appearance

5.1 Overall Dimensions (mm)

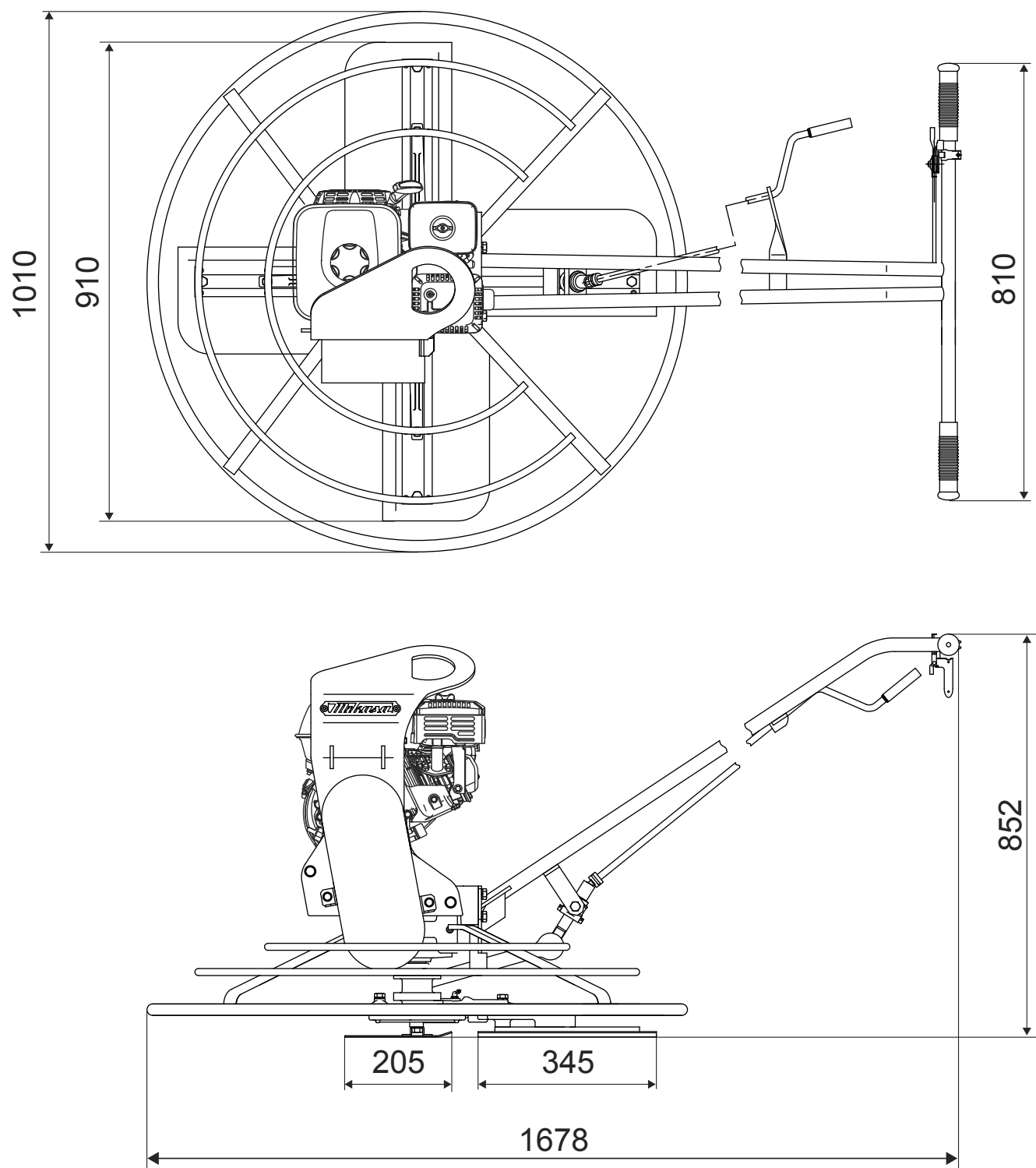


Fig.5.1.1

5.2 Names and Positions of Control Unit

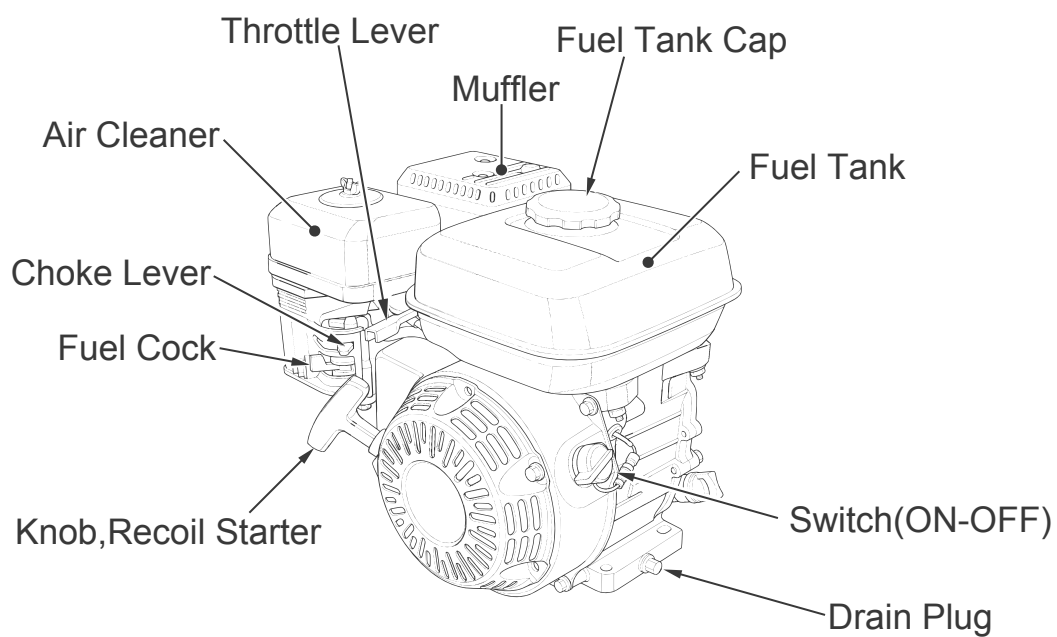
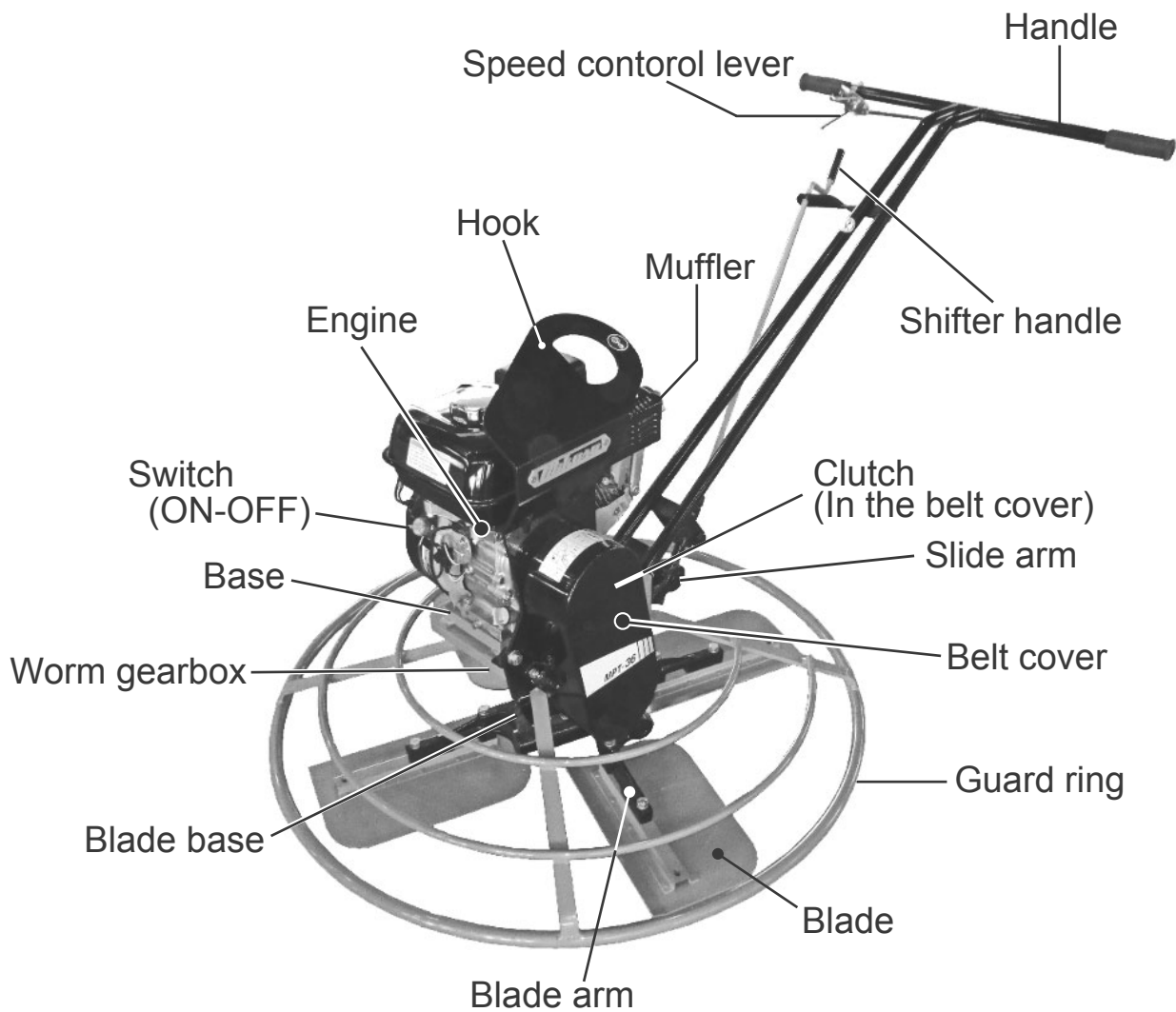


Fig.5.2.1

6.Specifications

6.1 Machine Specifications

Model	MPT-36H
Engine model	HONDA GX160
Overall length	1678 mm
Overall width	1010 mm
Overall height	852 mm
Diameter blade	910 mm (36inch)
Blade dimensions	205×345mm
Blade number	4
Blade revolutions	50 ~ 100min ⁻¹
Operating Weight	81 kg

6.2 Engine Specifications

Manufacturer/ Model	HONDA GX160UT2-SMXE
Type	Air-cooled 4-cycle petrol engine
Displacement	163 cc
Max. output	3.6 kW/3600 rpm 4.9 PS/3600 rpm
Lubricating oil type	SAE 10W-30
Lubricant capacity	0.58 L (580 cc)
Fuel tank capacity	3.1 L
Spark plug type	NGK BPR6ES

7.Operation

7.1 How to Operate Machine

The power trowel itself functions normally as long as properly operated, but it requires a certain technique or skill to achieve a better floor finish. Described below are the operational tips that will enable the operator to achieve a better performance from the operation.

- a. First, smooth the floor surface with a hand trowel. The machine then performs best when the floor surface has partially set to that a footstep would leave a slight indentation.
- b. To smooth the floor surface, operate the machine with the blades flattened. For making a lustered finish, operate with the blades slightly tilted. Do not tilt the blades excessively on an unset floor, since a wavy surface will result.
- c. In case that the floor has completely set and is difficult to smooth, cut the surface operate with the blades tilted as far as possible. Sprinkle water on the floor beforehand if necessary.
- d. In case that the operator uses for the first time, he should make several trial runs prior to operation.

- e. Follow a pattern in operation

The machine should be operated in a left to right direction.

This is known as the cutting position. The blades are being forced down slightly to keep the machine in position. This action breaks down humps and fills holes. On the return(right to left), the machine carries itself along in a flat position.

The return should be made at the joint of the two cuts of the machine, lapping half of each cut as illustrated.

7.2 Inspection Before Operation

CAUTION



Working Clothe for Safety Work

For safety working, wear working clothe and approved protective devices such like helmet, eye & respiratory protectors, working gloves and safety shoes accordingly.



Wear Ear Protector

To avoid din undesired sound, wear ear plugs and ear muff for protection.

DANGER



CAUTION

Stop engine while changing blade, inspection and maintenance.

Be sure to stop engine for changing blade, inspection and maintenance.

Do not touch with rotary parts such like blade, V-belt, etc.

It is also dangerous to touch with rotary parts without discretion.

Inspection Before Usage

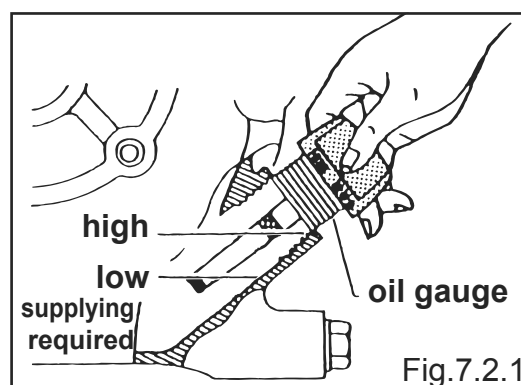
Before operation, check the following points:

1. Cover for safety protection parts
2. Lever Switch for control device
3. Fuel, Engine Oil and each part of engine
4. Bolts & Nuts for looseness
5. Other parts to be awake to abnormalities

1. Please check whether clamping screw of each part does not become loose.
When those become loose, please retighten them all.
2. Please check looseness of V-belt and any damage. Also let Engine Base slide when Belt tension is loose, and change V-belt, if necessary.
3. Check oil level of engine and add it if necessary.
Use the following recommended grade of oil.

	Temperature	Use oil (more than S C grade)
In the summer	More than 25°C	SAE#30
Spring / autumn	25°C - 10°C	SAE#30, #20
In winter	10°C - 0°C	SAE#20
	loss than 0°C	SAE#10


4. Check oil in Gear Box.
Take off a drain plug in Gear Box, and confirm whether oil enters to lips.
(Refer the recommended oil grade shown in Storage And Maintenance)



5. Fill fuel (automobile lead-free gasoline) with Fuel Tank.

- ⚠ Before refueling, stop engine by all means.
- ⚠ When refueling while engine running, spilled fuel leads to ignitable danger by engine sparks or hot muffler.
- ⚠ Wipe off spilling fuel completely before re-starting.
- ⚠ Always use Fuel Filter to avoid any contamination of carburetor from fuel line.

⚠ WARNING



When I fill it up with fuel, please stop an engine by all means. Fuel spills and can catch fire from engine spark or Muffler and is very dangerous when I fuel it with having run an engine.

6. Do not use indoor or in tunnel for poor and bad ventilation.

Engine exhaust gas includes harmful carbon monoxide with danger.
Be in mind to ventilate enough by the forced discharge outside of exhaust gas.

7. Wear safety shoes by all means.
8. How to Transport manually
 - For lifting, use only one point hoisting hook, and do not lift at any other part.
 - If power trowel is transported by hand, stop the engine and lift & move with guard ring by two men in both sides. To avoid any pinch by blade, hold at the space between each blade.

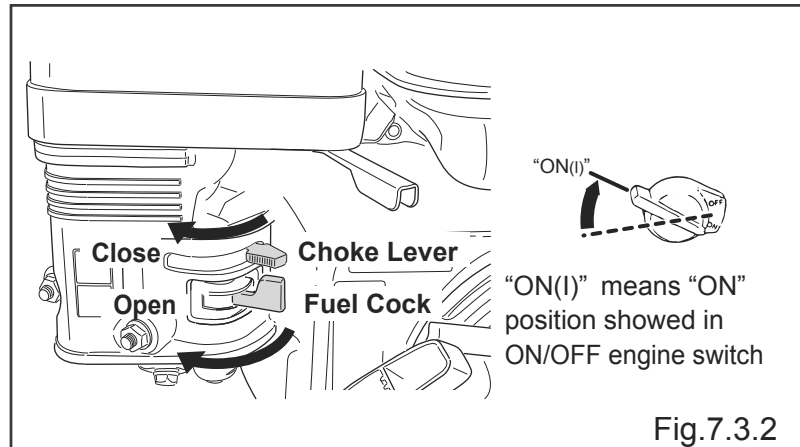
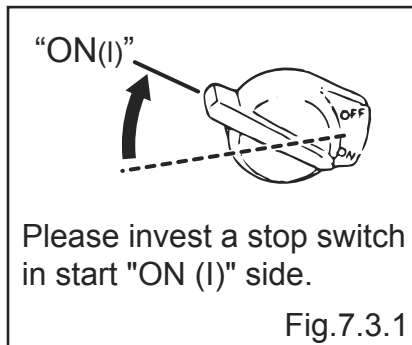
7.3 Starting

1.Start Preparations

Move Stop Switch to start (I) position.

Turn Lever of Fuel Cock to downward, to open.

Close Choke Lever of Carburetor confirming Throttle Lever keeps at Idle position.



2.Starting

- ⚠** Power Trowel is not easy to start or to operate while training period. Until trained enough, anyone assists operator to start, by keeping the handle at right position with safety.

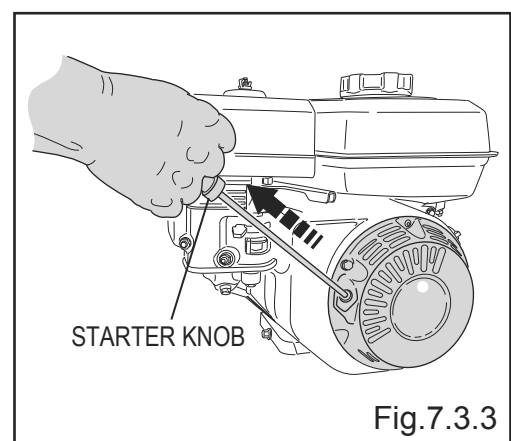
⚠ CAUTION

When starting or in operation, do not raise your foot on or inside of Guard Ring. If it does not start easily, move Throttle Lever to open position. But be careful not to open too much in starting, for promotional danger in sudden start.

Grasp Recoil knob to pull it until a light reaction, and then pull it strongly for starting. Be careful not to pull it too much, because the rope comes off. During the time, keep the safety position by holding Handle or Throttle Lever in left hand.

⚠ CAUTION

Trying recoil-starting in several times with closed choke lever may occur the starting difficulty more. Because the fuel over-flow in Cylinder happens.



3.Warming-up

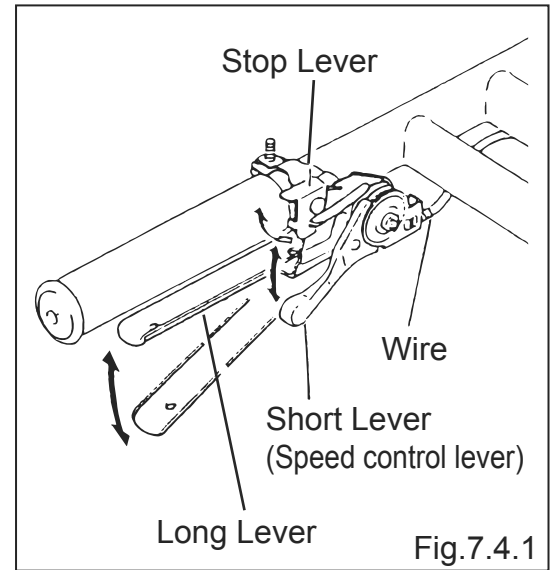
After engine starting, return Choke Lever to open position hearing the explosion sound. Be sure to warm-up the engine for 3-5 minutes especially in the case of cold-weather. While warming-up the engine, check whether any gas leakage or abnormal sound brings from engine.

7.4 Operation

1.How to adjust Throttle Lever

Grasp the longer lever to fix Throttle Lever first, and then start the adjustment of engine rpm by Short Lever. During the operation, always grasp longer lever with keeping Stop Lever open.

When stopping the operation, release longer lever leads to return Short Lever automatically to stop.



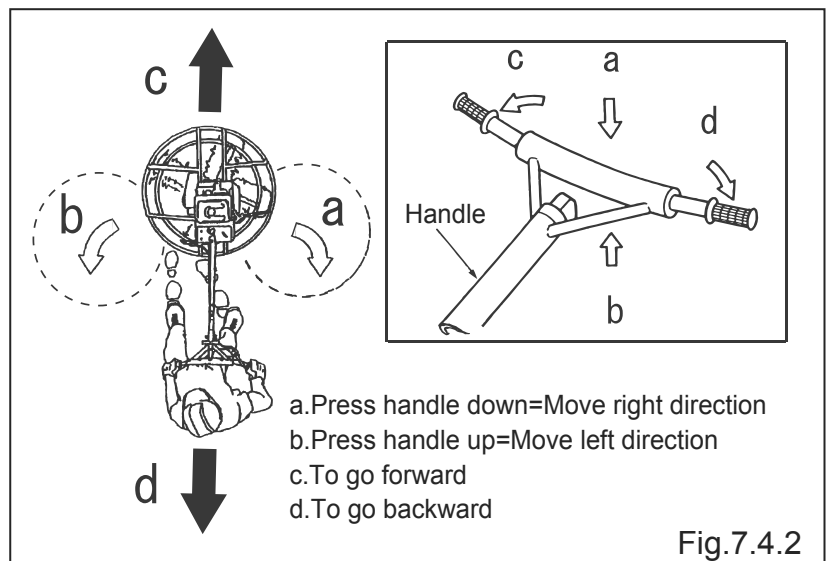
⚠ Before starting operation, be sure to check the movement of Short Lever goes smoothly.

⚠ Caution
Do not operate machine with improper engagement of centrifugal clutch. Improper engagement makes clutch or V-belt slip, and may lead short life of its part.

2.Point of Operation

Machine operation is executed by pressing Handle a bit.

- Press Handle down to move right direction.
- Press Handle up to move left direction.
- Twist Handle to right a bit to go forward.
- Twist Handle to left a bit to go backward.

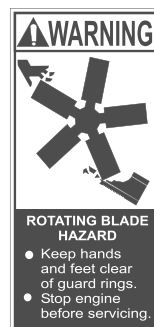


⚠ Starting does not get a handle off a steering wheel.

3.Adjustment of Blade Pitch(Angle)

Turning Shifter Handle to clockwise means to increase Blade Pitch with higher angle of blade.

On the other way, turning Shifter Handle to anti-clockwise means to decrease Blade Pitch with returning the blade angle.

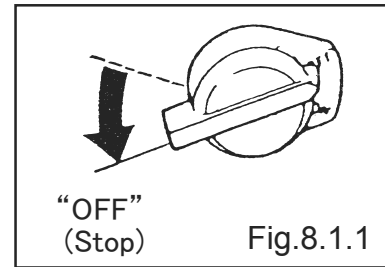


⚠ WARNING
Never operate equipment with covers or guard removed. Keep fingers, hands, hair and clothing away from all moving parts to prevent injury.



8. Machine Stop

1. When stopping the machine, return Throttle Lever and keep at the slow engine speed for 3-5 minutes for cool-down. Then turn Stop Switch to OFF (o) position.
2. Turn Cock Lever to close Fuel Cock.



⚠ CAUTION

Do not release your hands until turning Trowel Blades stops completely.

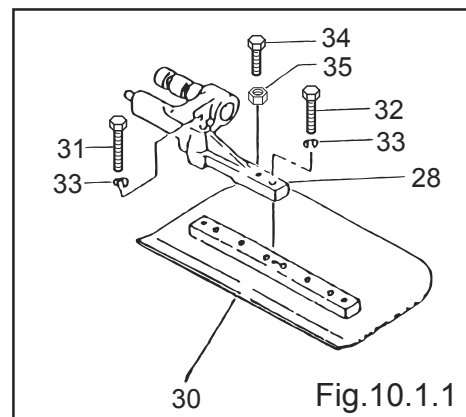
9. Storage and Maintenance

1. Clean-up Blades and rotating parts to avoid any stuck from concrete adhered, and then apply grease or kerosene after drying them.
2. Keep Blades flatter and store the machine in dry and shade area with cover to avoid any dust.
3. For longer storage, drain all of fuel from fuel tank and carburetor, and apply oil a bit for Cylinder inside from the side of Air Cleaner removed.
Try to move Piston to keep at the upper position with reasonable compression.

10. Change of Blades

When changed Blades, be sure to stop the engine by all means.
Change all of Blades as a set if changed

1. Keep at the flat position and make the position of each Blades at flat.
2. Remove each Blade from Blade Arm fixed by each 3 bolts. Bolt (34) is also fixed by Nut (35) which removes first.
3. Before fixed new Blade, clean-up the setting part of Arm by peeling off concrete dust.
4. Set Trowel Edge with positioning at each back side of Blade Arm, when replacing.
5. Screw Bolt (34) lightly to each Blade to fix Nut (35).
(Bolt (34) plays a role of Spacer)
Then, Fix Blade (30) to Blade Arm (28) by Bolt (31) & (32).



11.Periodical Maintenance

1. Check looseness of Bolt & Nut, oil leakage, V-belt and the movement of Lever & Cable.
2. Grease-up each 4 points of Blade Base, Slide Pulley, Universal Joint adjustable with Blade Pitch, Slide Bolt, etc.
3. Change lubricants in Gear Box.
 Use Automobile Gear Oil SAE 140 (GL-5 class) of which contents at 500cc.
 1st 50 hours from the beginning
 2nd 250 hours after 1st replacement
 The later or Every 1,000 hours
4. Refer to Engine Instruction Manual for inspection and maintenance.

Check points	8 hours(daily)	50 hours (week)	200 hours (month)	500 hours
Cleaning and looseness check	Every 8 hours to follow			
Check and replenishment of engine oil	Every 8 hours to follow			
Replacement of engine oil	(First 20 hours)	Every 50 hours to follow		
Cleaning of spark plug		Every 50 hours to follow		
Cleaning of air cleaner		Every 50 hours to follow	Every 200 hours to follow	
Cleaning of fuel starainer			Every 200 hours to follow	
Check the gap of spark plug				Every 500 hours to follow
Replacement of piston ring				Every 500 hours to follow
The cylinder head carbon paper removal				Every 500 hours to follow
Vaporizer cleaning				
Grind Intake or exhaust valve and put it together				
Piston ring exchange				
Overhaul				

Because the above is use time in normal condition, please shorten it by a use condition.
 Please change fuel pipes in two years.

12.Troubleshooting

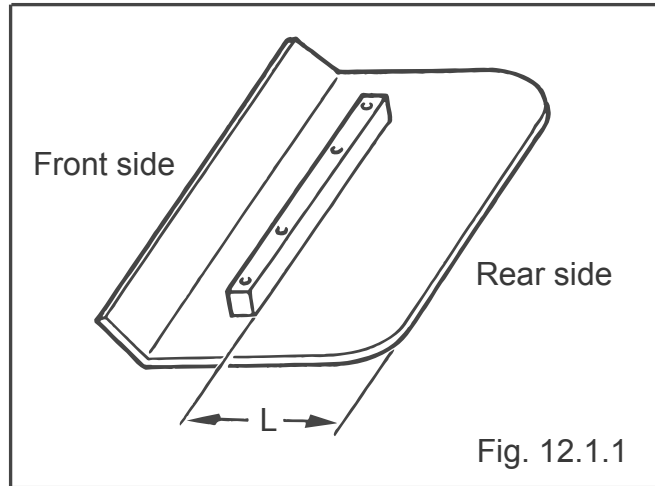
12.1 Body

- a. Machine bounces
- b. Concrete surface waves
- c. Concrete surface flows in whirls

1.Check the wear of blade(Fig. 12.1.1)

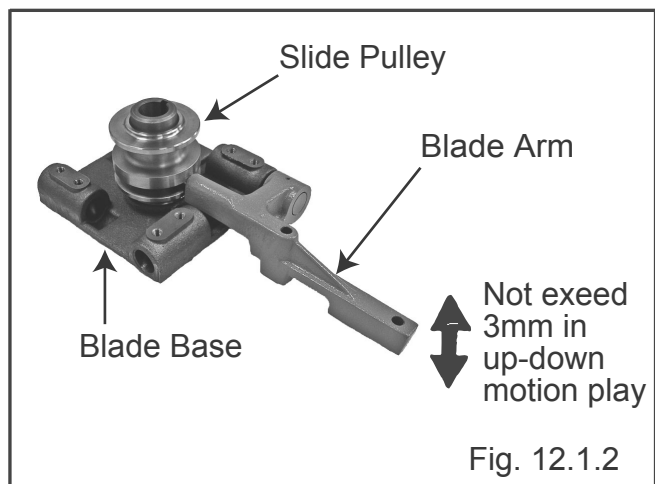
Measure the width (L) from the trowel edge to blade setting plate. If the width (L) of Combination Blade is less than 90mm, replace blade.

If the one of Finish Blade is less than 26mm, replace blade also.



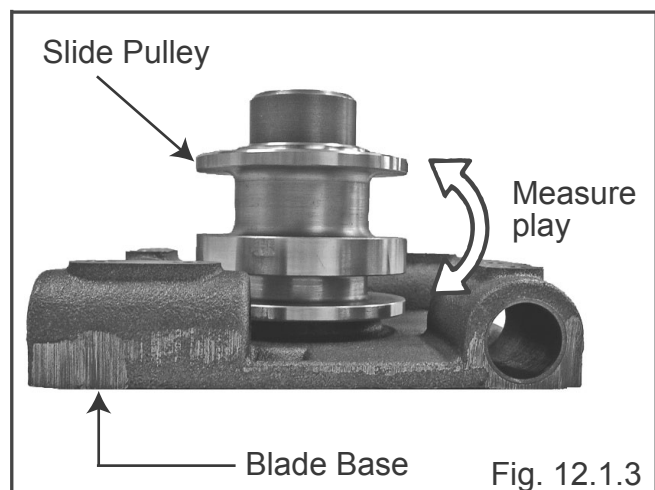
2.Check Blade Base(Fig.12.1.2)

- a. Check the wear and bentness of Blade Arm. If so, replace it.
- b. Check each Blade Arm inserted to Blade Base Hole. Replace Blade Base at the same time, if the top edge of Blade Arm moves exceeding 3 mm.



3.Check Slide Pulley(Fig.12.1.3)

- a. Move Slide Pulley up and down to measure play. If it exceeds 2.4 mm, replace parts.
- b. Rotate Slide Pulley to check it. If it is not easy to turn or makes abnormal sound, replace it.
- c. Check the wear of Slide Pulley. If it wears enough, replace it.



4. Check Main Shaft (Fig. 12.1.4)

If trowel sways from side to side, check Main Shaft of Worm Reduction Gear. Main Shaft rotates vertically, and do not let it sway in maintenance. If happen, disassemble Worm Reduction Gear to find solution.

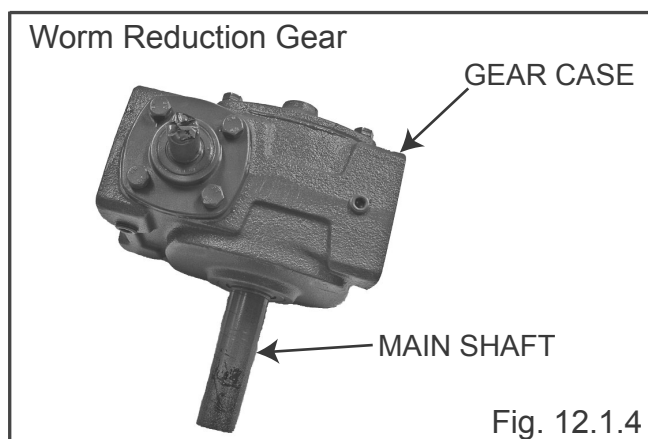


Fig. 12.1.4

5. Check Clutch and V-belt (Fig. 12.1.5)

Clutch is designated with its tension, and there is necessary to adjust V-belt. If V-belt starts to slip, check and confirm Clutch function first, and then replace V-belt. After stopping Engine, check Clutch rotates smoothly to the rotation direction, and Ball Bearing rotates freely. Check the V-belt between engine and Worm Reduction Gear for sag or defect. Tension is normal if the deflection is 10 -15 mm when depressed at midway between the two shafts. Adjust tension as necessary. When replacing, A-30 belt should be replaced. Keep and use the replaced one yet usable as supplement. For adjustment of tension, move the engine base to front or rear.

⚠ CAUTION:
Employed Self-tensioning Centrifugal Clutch lets V-belt make loose while Engine stops.

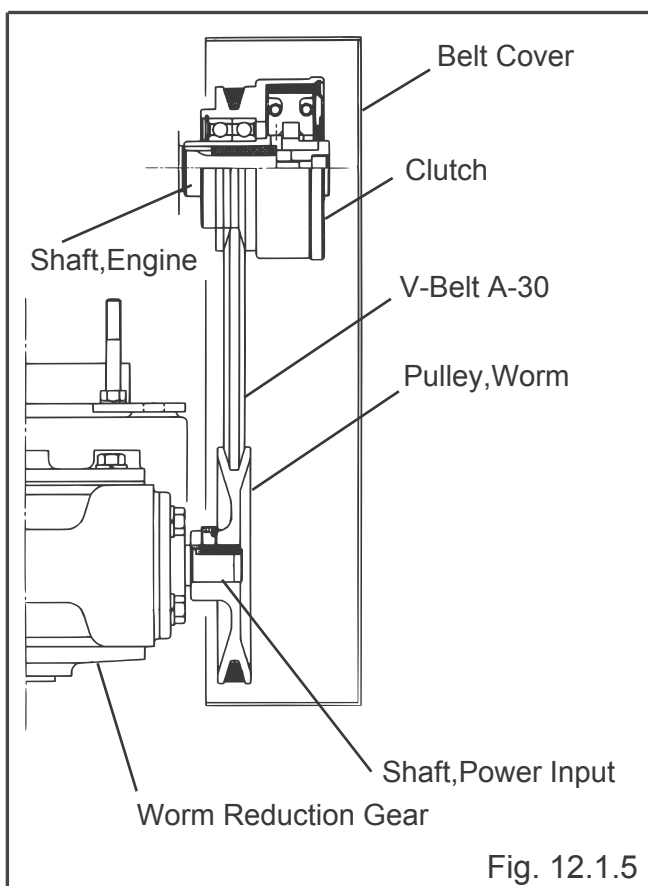
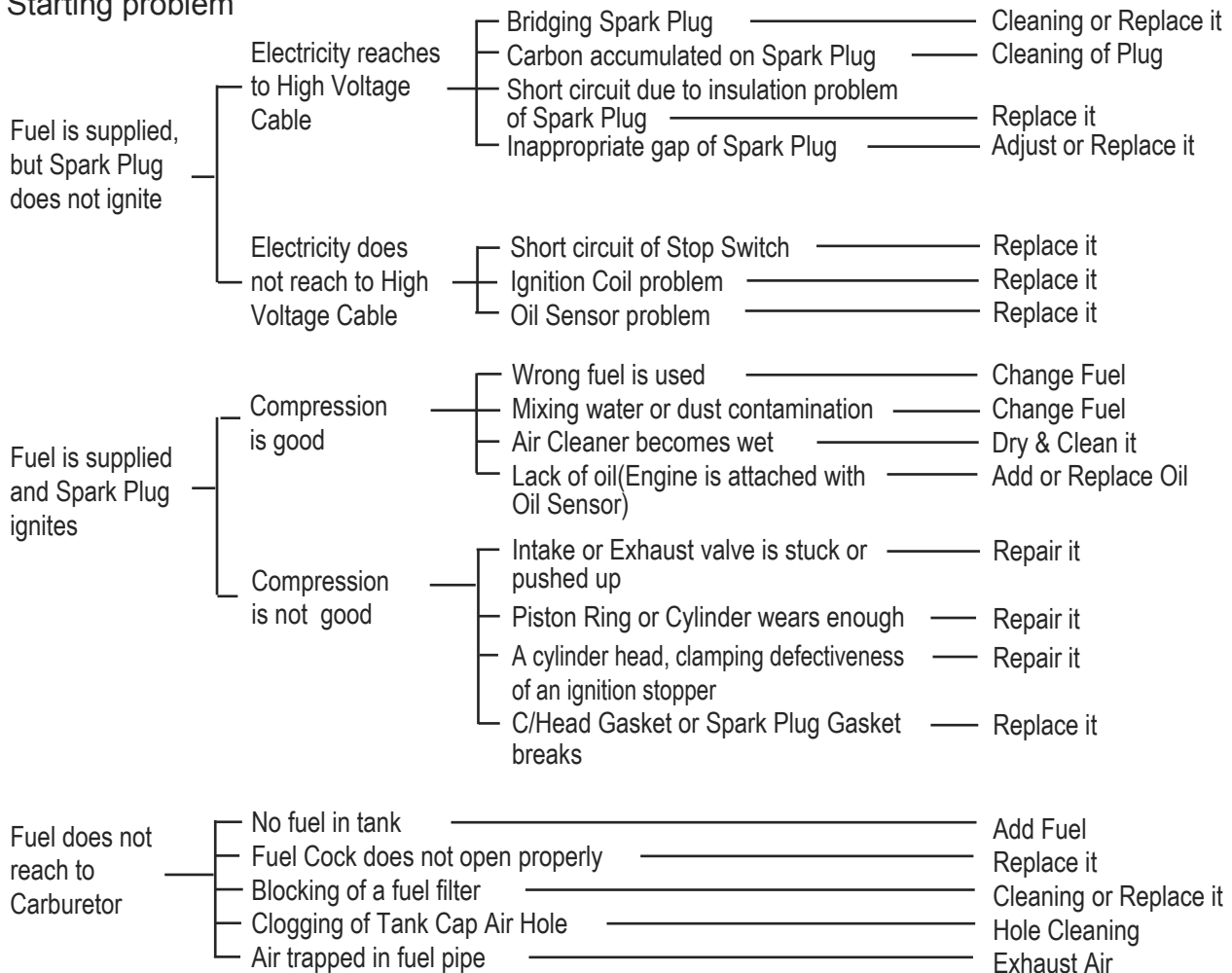


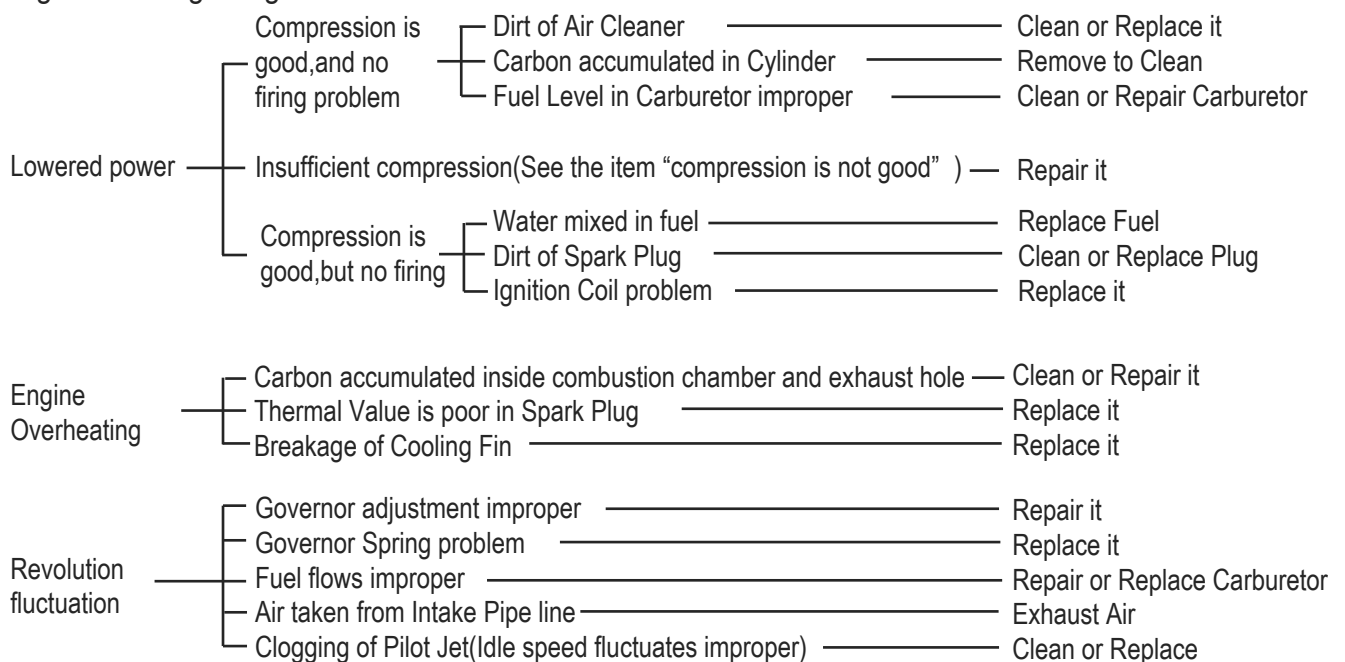
Fig. 12.1.5

12.2 ENGINE

(1) Starting problem



(2) Engine Running Rough



Mikasa

MIKASA SANGYO CO., LTD.

1-4-3, Sarugakucho, Chiyoda-ku, Tokyo, 101-0064, Japan

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