

日農
NICHINO

CULTIVATOR

308-系列 中耕管理機



使用保養說明書

Operation and Maintenance Manual

IE-IE CORPORATION (www.ietw.com.tw)

MADE IN TAIWAN

使用前請務必詳細閱讀本說明書

2012年1月製

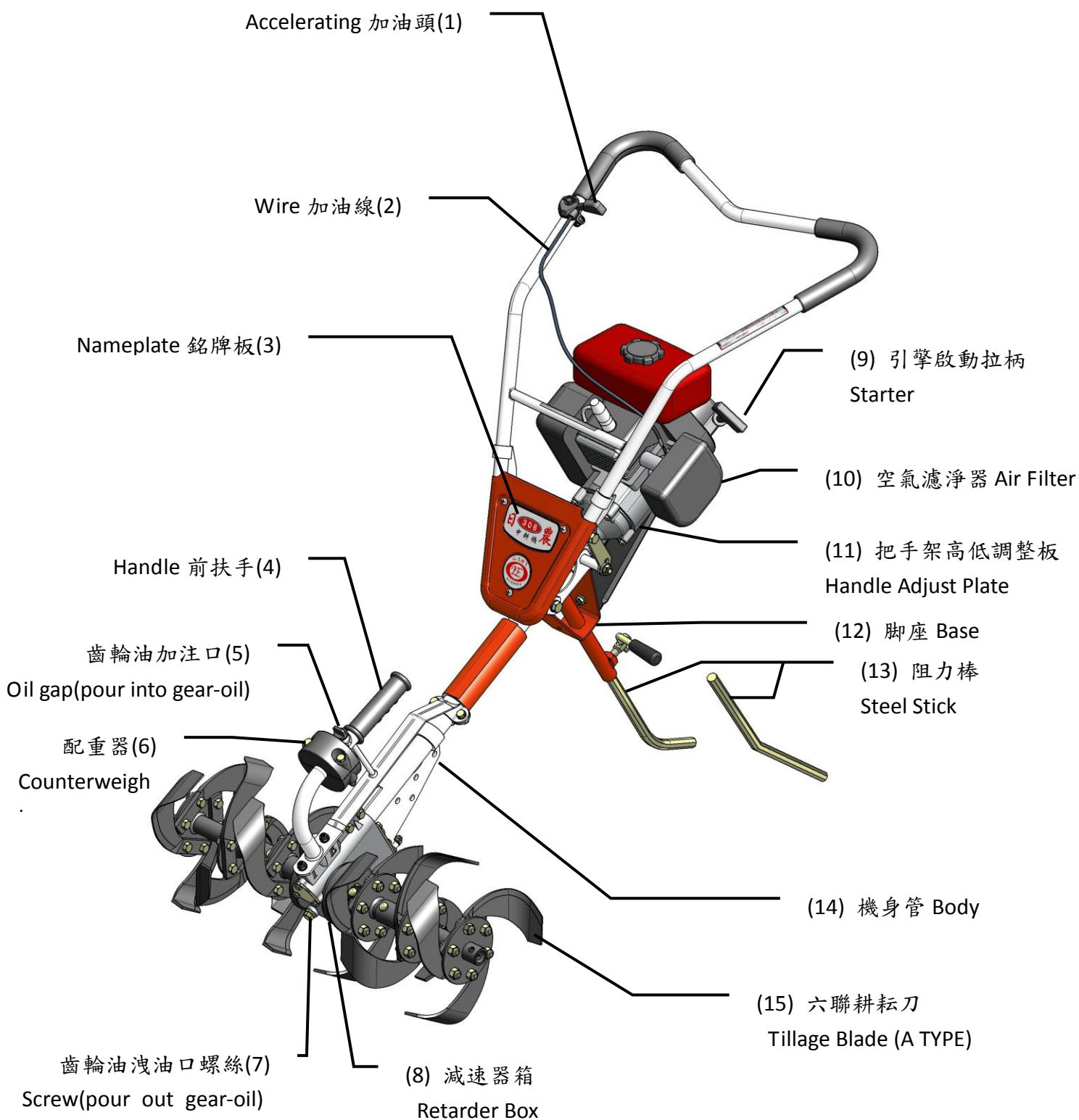
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1.主要規格 Main specification :

名 稱	規 格 specification	備 註
配 備 動 力 Horsepower	3.3 HP (NICHINO-型式 IE-08)	
機 體 淨 重 Net Weight	25 KG (Exclude engine)	
機 體 尺 寸 Dimension	長(L)122 ×寬(W) 59 ×高(H) 83 (公分 cm)	
耕 耘 寬 度 Width of Tillage	29~74 公分(cm)	最窄~最寬 Range
耕 耘 深 度 Depth of Tillage	28 公分(cm)	最深 Deepest
前 進 方 式 Forward moving	以耕耘軸上作業器具運轉作為機體前進的驅動力 The device moves forward driven by the operator on the tiller shaft.	作業中 Operating
作 業 方 式 Operation	後阻力式使耕耘部達到作業效果 Drag-type tiller for successful operation	
移 動 方 式 Transfer	手提肩扛、自行載運 Hand-held or shoulder-carrying	
傳 動 方 式 Transmission	離心式離合器，由動力傳動軸經蝸輪減速直接傳動 Centrifugal clutch plus direct power transmission shaft going through worm reducer	
作業器具拆裝方式 Take off implement	利用插銷拆裝 Pull the pins	

2.各部位名稱 Machine Structure :



3. 潤滑 Lubrication :

1. 引擎 Engine：由混合汽油中取得潤滑，比例為 25：1（無鉛汽油：2T 機油），工具袋內附 1 公升比例油桶，請多加利用。

Engine: Lubrication provided by the mixed gasoline at the ratio of 25:1 (unleaded gasoline: 2-stroke oil); a 1-liter ratio fuel drum is available in the toolkit for easy operation.

2. 減速器箱：# 140 多效齒輪油(添加二硫化鉬為佳)。

Reducing gear box: # 140 multi-purpose gearing fluid (add molybdenum bisulphide)

4. 檢查 Checks :

1. 各部位螺絲、螺帽等有無鬆動現象。

Be sure no loose screws or nuts.

2. 把手架有無鬆動現象。

Be sure the handle is not loose.

3. 各潤滑部位是否依照指示，適時加入潤滑油。

Check if all lubrication points are duly lubricated as specified.

4. 機械稍作運轉移動，檢查有無異常的聲音及異常發熱的地方。

Start and run the machine and check for abnormal noise and overheating.

5. 作業後的情況，請定期的檢查及備忘。

Be sure to conduct regular checks after each operation of the machine and take notes.

5. 調整 Adjustments :

1. 引擎迴轉速度調整：引擎慢速運轉時（1500～2000RPM）耕耘軸須呈靜止狀態。

Adjustment of engine RPM: With the engine on a low speed (1500～2000RPM), the tiller shaft shall remain still.

2. 把手架高低調整：在把手架銘牌板上部的下方螺絲、螺帽鬆開，再依操作者之需要，由高低調整板上三孔調整高低（亦可由阻力棒調整高低）。

Adjustment of handlebar height: By loosening the screws and nuts below the nameplate on the handlebar, you may adjust the height of the handlebar using the 3 holes on the adjustment panel (or using the drag bar.)

6. 操作注意事項 Operation Remarks :

1. 起動以前，檢查各部螺絲、螺帽有否鬆動。

Before starting the machine, be sure to check for loose screws and nuts.

2. 引擎燃料使用 25 : 1 二衝程混合汽油。新車時燃料混合比為 20 : 1。

The engine runs on 2-stroke gasoline of a mixture ratio of 25:1. For a new machine, the fuel mixture ratio goes at 20:1.

3. 為了加強增減引擎迴轉數之敏感性，切勿將加油線纏繞在把手架，應順其自然之弧度定位，或者在搬運時勿拉加油線。

To enhance sensibility of the engine RPM. Do not circle the acceleration wire on the handlebar; allow it be positioned in a curve and do not pull the wire during handling.

4. 引擎起動時手握起動拉柄，並拉至拉柄有卡住的感覺時再迅速拉引擎起動拉柄予以起動（中間過程中不可斷斷續續的情形），並在起動後不可立即放開拉柄，應將拉柄握住並隨其拉力回歸原位。

To start the engine, hold the starter handle and pull it until the handle becomes engaged and pull the starter handle immediately (no interruptions are allowed during the process) and do not release the handle after starting the engine; be sure to hold the handle and allow it be reset with the pulling force.

5. 本機係採用自動離合器，當引擎起動前，加油頭的推桿定位 SLOW（全程 1/3 之處），切勿推至推桿行程 1/3 以上，以免起動時，耕耘軸隨引擎發動而運轉。

This machine features an automatic clutch; before starting the engine, the push rod on the accelerator stays at SLOW (at 1/3 of full range). Do not push it beyond 1/3 of the trip of the pushing rod, or the tiller shaft may go on along with the start of the engine.

6. 當引擎起動後應實施 1~2 分鐘暖機運轉（可確保引擎壽命），如果起動後立即急速運轉，會因為混合燃料中潤滑油未充分分佈各機件，而損害引擎使用壽命。

After starting the engine, allow 1~2 minutes for warm-up (to assure long service life of the engine); operating the machine at a high speed immediately after starting it may damage the engine and shorten its service life, as the lubricant in the mixed fuel is not duly distributed in all components of the engine.

7. 空氣濾清器的過濾棉，若有穢物阻塞時，將會影響引擎馬力，所以在每次使用後，用清水清洗過濾棉，洗清後再用手壓擠過濾棉至乾。

When the filter wool in the air filter becomes stuck by dirt, the engine may have its HP in jeopardy; be sure to wash the filter wool with clean water after each operation and squeeze it to dry with your hands.

8. 當要更換作業器具搬運時，一定要先將油箱燃料開關關閉，引擎依然隨其運轉至自行熄火為止，以免化油器內燃料滲入汽缸內而產生起動不易現象。

To move the machine, be sure to first turn off the fuel switch in the tank while allowing the engine to run until it goes off automatically, this is to keep fuel out of the carburetor causing troubled starts.

9. 每當作業完畢時，將刀具防草蓋內雜草及積土清除，耕耘軸加入潤滑油後再將刀具裝回。

After each operation, be sure to remove the weeds and dirt buildup from the weed guard of the cutting blade and lubricate the tiller shaft before loading the cutting blade.

10. 齒輪油之更換：Change of gearing fluid

新車第一次使用時，用本廠附配齒輪油 # 140 多效齒輪油 250CC，由注油孔注入減速器箱。第一次使用 8 小時，爾後每使用 25 小時更換一次。

After using a new machine for 8 hours for the first time, add 250cc of the # 140 multi-purpose gearing fluid provided by the manufacturer into the reducer box from the feeding hole. After that, change the fuel every 25 hours of use.

放油時，先取下洩油螺絲，再將注油孔向下並於作業後隨即放油減速器箱內齒輪油才能完全流出。(氣溫低時並於水田中作業時，減速器箱外部會有水蒸氣產生，此現象是因減速器箱的熱度影響，可繼續作業)

To release the fluid, be sure to remove the release screw and have the feeding hole face down to evacuate all gearing fuel from the reducer box. (In case of low temperature and working in a paddy field, steam vapor may appear outside the reducer box because of the heat in the reducer box and you may keep on working.)

注油時，先將機身置放地面，再取下注油孔蓋，再慢慢將齒輪油注入（請勿超過規定之容量 250CC）

To add in oil, be sure to place the machine on the ground and remove the oil gap before adding in the gearing fluid slowly (do not add in more than 250cc.).

7. 安全注意事項 Safety Remarks :

1. 作業前機器檢查：檢查機器時，必須在引擎完全停止的安全狀況下檢查。

Checks before operation: When checking the machine, be sure to do so when the engine has stopped completely.

2. 作業器具檢查：作業刀具的各部螺絲、螺帽必須確實鎖緊。

Checking operating devices: Be sure all screws and nuts of the blades are duly tightened.

3. 作業中的安全事項：作業者須有安穩的作業姿勢。在較硬土質作業時，須加強阻力，並確實握著把手架，以備隨時給予後阻力，以達到碎土、除草效果。

Safety during operation: The operator must keep a sound operating posture. When working on hard soils, be sure to hold the handlebar still for additional drag and sound crushing and weed removing effects.

4. 室內作業要注意空氣清新：室內作業由於引擎排出廢氣，易引起中毒現象，在室內作業一定要將門窗打開使空氣對流。

Fresh air is essential to indoor operations: With the engine emitting waste gas indoors, intoxication may result. When working indoors, be sure to have the doors and windows open for sound air flow.

5. 燃料補給：引擎一定要熄火。本機種使用二衝程混合汽油，引擎油箱或儲油桶之混合油長期儲放後，使用前請充份搖勻。加油時，附近嚴禁煙火。

Feeding fuel: To do so, be sure to turn off the engine. This machine uses a 2-stroke mixed gasoline which is usually stored in the fuel tank of storage drums for a long time. Before using it, be sure to shake it well and when adding fuel, smoking is strictly prohibited in the area.

6. 潤滑油檢查：作業前必須確實檢查齒輪是否足夠。

Checking the lubricant: Before operation, be sure to check if there is enough lubricant.

8. 運轉操作 Operation :

◎引擎啟動及熄火方式 **Starting and turning off the engine:**

無鉛汽油混合二行程機油 (25:1)，加入汽油箱，打開油開關，關上阻風門，加油頭加一點油，將引擎啟動拉柄拉約 2~3 下，就可以發動，發動以後再將阻風門打開，並依作業需要加油門控制刀具的運轉速度，作業完成按下熄火開關，即可停止運轉。

Add unleaded gasoline mixed with 2-stroke oil (25:1) into the gasoline tank and open the fuel switch, turn the choke vent closed and add a little fuel to the oiler. Pull the starter handle of the engine 2~3 times to start the engine. After starting it, open the choke and increase the pace of the control blade of the accelerator as required. After the operation, press down the OFF switch to stop the operation.

◎車台操作方式 **Operating the scarifier:**

1. 耕耘軸旋轉數之控制：把手架右側上的加油座推桿，向左側推為加速，向右側推為減速或停止，作業時加油座，推桿推至加油座座標 8 以上，無作業時加油座推桿推至加油座座標 0 以下，作業時以確保引擎輸出馬力及離合器壽命。

Controlling RPM of the tiller shaft: Push the feeding rod to the right of the handlebar to the left for acceleration and pushing it to the right for deceleration or to stop the machine. During an operation, push the rod to 8 on the feeder or above; when the machine is off, push the rod to under 0 on the feeder. This is to secure output HP of the engine and service life of the clutch.

2. 耕作寬度：依作業需要可增減左、右兩側刀具座節數，最窄 29 公分，最寬 74 公分。

Operating width: This is to change the number of stages on the blade seat as required.

The operating width varies between 29cm and 74cm.

3. 耕作深度：阻力棒深入地面，或增加配重器，可使耕作深度加深。

Operating depth: By inserting the drag rod deep in the ground or increasing the counterweight, you may increase the operating depth.

阻力棒淺出地面，或減少配重器，可使耕作深度愈淺。

By keeping the drag rod off the ground or reducing the counterweight, you may reduce the operating depth.

4. 耕地地面上行走：將把手扶高，使阻力棒離開地面，以作業器具運轉代替車輪便行走。

Walking on the operating ground: By raising the handlebar and keeping the drag rod off the ground, the device runs like a vehicle.

5. 轉向操作：將引擎迴轉速降低至耕耘軸呈靜止時，以阻力棒為支點，並將把手架向下壓使耕耘軸部離開地面，再依照欲旋轉方向旋轉。

Steering: When lowering the engine RPM down and with the tiller shaft still, using the drag rod as point of support, press the handlebar down to make the tiller shaft off the ground and steer to the desired direction.

6. 配重器：土質較硬者於前扶手架彎管處加裝配重器，可增加作業效果。

Counterweight: For hard soils, add counterweight at the bent tube on the front handlebar.

9.長期置放：Long-term storage

1. 各部清洗乾淨後，檢查各部螺絲是否有鬆動、漏油、損壞。

After cleaning the elements, be sure to check for loose, damaged screws or oil leakage.

2. 本機易生銹部份，在使用後，清洗乾淨並必須塗抹防銹油或噴漆以防生銹。

After using the machine, be sure to clean all components vulnerable to oxidation and apply rust oil or paints.

3. 將油箱燃料漏乾並將引擎發動至自行熄火為止。(化油器及油管內均無燃料) 再將火星塞取下，並於火星塞口處注入機油於汽缸內，爾後拉引擎起動拉柄，使活塞反覆運動十數次，再把火星塞鎖緊，並使活塞於汽缸內呈壓縮狀態。

Evacuate the fuel from the tank and start the engine until it turns off automatically.

(Without fuel in the carburetor and fuel pipelines) Remove the spark plugs and add oil in the cylinders. Pull up the start handle to have the pistons repeat the movement for a dozen times before tightening the spark plugs while keeping the pistons compressed in the cylinders.

請將空氣濾清器內濾清取出綁掛把手上使用前再行裝入。

Remove the filters from the air filters and hang them on the handlebar and load them before use.

10. 隨機配件清單 Accessories :

1. 六聯耕耘刀 (一組)

6-rotary tillage blade (1set)

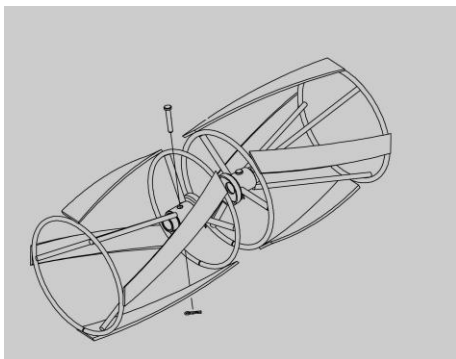
2. 工具袋 (一只)

Tool bag (1 bag)

11. 選購配備(308A-type) Additional accessories purchase :

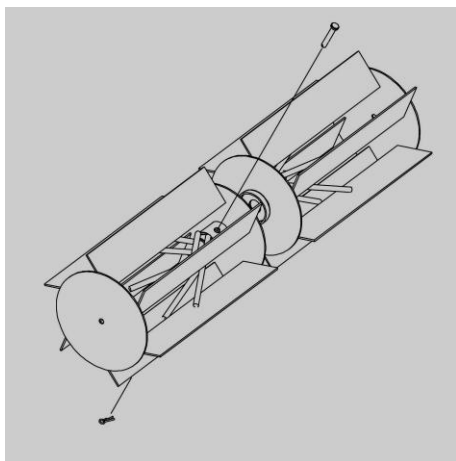
1. 除草輪(雞糞輪) (一組)

Weeder Wheel (Excrement Wheel <for chicken excrement>) (1 set)



2. 水田輪-小 (一組)

Paddy Wheel (1set)





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