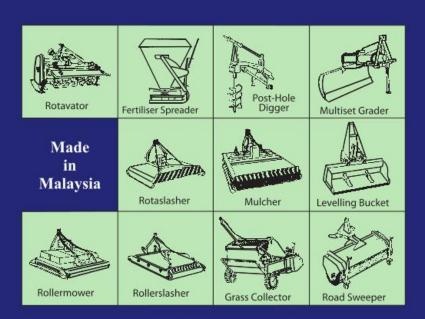




# Owner's Manual & Parts List for HOWARD



2, Jalan Perusahaan Tiga, Batu 20, 48000 Rawang, Selangor Darul Ehsan, Malaysia.
Tel: 603 - 6093 1010 Fax: 603 - 6092 1010
e-mail: howardmy@tm.net.my www.howardmy.com

### SAFETY

In the Owner's Manual accompanying each machine manufactured by HOWARD Alatpertanian Sdn. Bhd., Malaysia, (HOWARD), Safety features and precautions to be taken when operating the various implements are duty described.

Some or all of the following informtion or warning labels are affixed to the machines.

Machine model	Label	Warning / Information
All	Model	Followed by model number embossed on the machine frame
All	Serial No.	Followed by year of manufacture (alphabet code), and production serial number embossed on the machine frame.
		General warning that:
All	$\triangle$	a) the machine may pose danger to operator and/or surroundings.
All		b) such dangers are described with precautions to be taken in the accompanying Owner's Manual.
All	(€	c) HOWARD has sought to minimise such dangers in compliance with appropriate safety directives, and maintains technical records accordingly.
All		Name and address of manufacturer (HOWARD) and year of manufacture.
All	<b>X</b>	Beware of flying objects and stay clear of operating machine.
HR/HS/HFS/PHD/ HM/HRM/HSW/	. *	Affixed to rotating universal drive shaft (U/J) linking tractor with implement. Refer also to the safety and maintenance guidelines as
HSC/HA/HMC/HTS		described by the OEM U/J manufacturer supplied with each universal drive shaft.
HR/HS/PHD/	Hot oil	Gearbox oil may become hot after continuous operation.
HM/HRM/HSC/		,
HA/HMC		
Various	Others	General informative or safety stickers as oppropriate.

### DECLARATION OF CONFORMITY

We declare that HOWAD implements/machines have been manufactured in conformity with EU Council Directive 2006/42/EC -L 157.

Kuala Lumpur, Malaysia - 12th January 2010.

Mohd Rafi bin Jamlus

(Production Manager)

Balasubramaniam Vailu (QA - Inspection)

Diana Bartolome (ISO MR)

### HEALTH

The safety and health of operators and fitters is generally the responsibility of the owner of the machine. However, HOWARD has strived to design its implements so as to minimise risks.

Likewise, in the manufacturing process, emloyee safety and health is monitored in accordance with Malaysian law and HOWARD's internal production management systems.

### **ENVIRONMENT**

Environmental assessment is carried out on HOWARD's products and manufacturing processes, as described in the company's 9001 ISO management procedures.

### WARRANTY

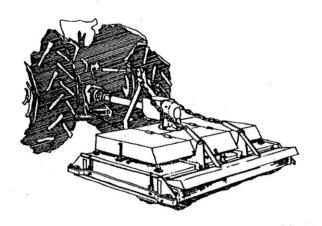
We undertake to supply, free of charge, new parts in place of parts which break or wear excessively through faulty material or bad workmanship within SIX months after delivery, provided such faulty parts are returned to us carriage paid, for examination. But we are not liable for labour, or any loss or damage direct or consequential, nor responsible for any accident, or in any way for the effect of any accident, whether due to defective material, workmanship or otherwise, and our guarantee does not apply to defects which in our opinion are caused by accident, wear or tear, misuse or neglect, including the use of unsuitable or dirty lubricants, or by interference with the construction of the machine as completed by us.

Your obligation as the Owner is to give the machine proper attention and care, in accordance with the guidelines given in this OWNER'S MANUAL PARTS LIST>

We reserve the right to make changes in design, and changes or improvements upon our product, without imposing any obligations on us to install the same on products there-to-fore manufactured.



### **ROLLAMOWA HRM180**



### Serial number

The Serial and Model Numbers are stamped on the frame of your ROLLAMOWA HRM180. For future reference, record the numbers below. ALWAYS quote them when ordering spareparts:

MODEL No.	
SERIAL No.	200
Date Purchased	2

We hope you will be happy with your **HOWARD** Rollamowa.

Treat it well - and it will serve you diligently for many years to come.

Should you encounter problems - or have questions in respect of grass cutting or green maintenance

- please feel free to contact us or consult our dealers.

### Notes:

- Continuous R & D may result in the technical contents of this Manual not always being identical to the specifications for the latest model delivered. HOWARD in ASIA since 1962.
- 2) For more details and technical support, consult our web-page: www.howardmy.com

HOWARD Alatpertanian Sdn. Bhd. 2, Jalan Perusahaan 3

Batu 20, 48000 RAWANG Selangor, W. Malaysia

Tel: (6 03) 6093 1010 Fax: (6 03) 6092 1010

E-mail: howardmy@tm.net.my

Spare Parts Direct Line: (6 03) 6093 6363

### SAFETY PRECAUTIONS & OPERATING INSTRUCTION

### Before use

- Ensure operators have read and are familiar with instructions contained in this manual.
- Consult the Tractor Manufacturer's Manual for instructions on mounting implements and safe working methods.
- Ensure the ROLLAMOWA is standing on firm level ground.
- Ensure the ROLLAMOWA is set parallel to the ground, when looking from the back of the machine - this is to ensure uniform height of cut.
- Ensure the ROLLAMOWA BLADES are securely fitted and can swing freely.
- Make certain that all guards, covers, warning labels and safety devices are correctly fitted and operative.
- Ensure the work area is clear of bystanders.
- Inspect the work area for obstructions which may constitute a hazard.
- Disengage all clutches and shift into neutral prior to starting the tractor engine.

### **During** use

 Lower the ROLLAMOWA to the ground, then engage the PTO drive before moving forward at a speed suitable for prevailing conditions.

As a general guide, the more unfavourable the conditions are, the SLOWER the tractor forward speed should be.

- Observe all safe driving procedure such as reducing speed on slopes and sharp turns.
- Avoid working on ground where there is a risk of the tractor overturning.
- Do not operate across the face of slopes.
- When making sharp turns, while operating the ROLLAMOWA, ALWAYS lift the machine clear of the ground and disengage the PTO drive.

### After use

- Disengage the PTO drive when transporting the ROLLAMOWA or not in use.
- Inspect the ROLLAMOWA for damage.
- Check that all bolts, nuts and fasteners are tight.
- Carry out lubrication and maintenance as detailed in this manual.

### Always

- Wear substantial or safety footwear.
- Avoid loose clothing which may be caught in moving parts.
- Wear earmuffs or earplugs. Prolonged exposure to noise can cause impairment or loss of hearing.
- Wear gloves when handling worn implements or parts with sharp edges.
- Use the ROLLAMOWA only for the purposes for which it was designed, tested and in accordance with the instructions contained in this manual.
- Ensure the ROLLAMOWA is not operated by children or untrained persons.

### **NEVER**

- Use your ROLLAMOWA unless the safety guards are in place.
- Touch any moving parts of the implement or parts which may be hot from operation.
- Allow passengers on the tractor or implement when operating.
- Check oil levels whilst the implement is running.
- Attempt to clear any obstruction around the Blade Beam Assembly or carry out cleaning, lubricating, adjustments, repairs to a mounted implement unless the tractor engine is stopped and the implement is resting on firm level ground.
- Remove belt guards unless the machine is completely at a standstill.
- Leave the tractor seat unless the implement is lowered, the PTO drive disengaged, the gear shift in neutral, the brake applied, the engine stopped and the ignition key removed.

BE A SAFE OPERATOR
BY THINKING - BEFORE ACTING

Specification	HRM180									
Tractor HP, recommended	35 - 55									
Linkage, three-point	Cat. I/II									
Cutting width	180 cm									
Cutting Height	1 - 9									
Cutting Heads	3									
Cutting Blades	6									
Dimensions, H x W x L	87 x 195 x 127 cm									
Weight	540 Kg.									

HOWARD's ROLLAMOWA HRM180 is a medium-duty machine - suitable for roadside maintenance, and general grass cutting on sports fields and golf courses.

Tractor travel speed will influence the type of cut achieved. For long grass (rough), a slow speed should be used; whereas for short grass, a faster tractor speed can be adopted.

### UNIVERSAL / PTO DRIVE SHAFT

### BEWARE!!!

- Raising and lowering of the ROLLAMOWA will result in the telescopic movement of the PTO Drive Shaft Assembly. Please ensure that it does not jam or become disengaged.
- As a general rule, the Outer Cardan Tube and the Inner Cardan Tube must be at least half engaged (minimum 25 cm).
- ▲ The more the Outer and Inner Cardan Tubes are engaged, the longer the service life of the PTO Drive Shaft Assembly is, besides ensuring optimum power transmission.

### Fitting of the Universal Drive Shaft

- Periodical oiling will ensure easy operation of the Lock Pin Kit sitting at the side-end of the PTO Yoke Assy. of the Drive Shaft.
- When fitting this Drive Shaft, ensure that the Lock Pin Kits are properly seated in the grooves of the PTO SHAFT of the tractor and the INPUT SHAFT of the ROLLAMOWA.
- Also ensure that the Safety (Plastic) Guard of the Drive Shaft does not foul the tractor PTO Guard.

### Maintenance of Universal Drive Shaft

- ▼▼▼ Cleanliness will help prolong the life span of the Drive Shaft.
- H Daily grease Cross Journals until grease comes out of the 4 cups.
- # Inspect Cross Journals periodically and replace them when necessary.
- H Daily smear a layer of grease on the Cardan Tubes.
- # Apply a coat of grease to the inside splines of the PTO Yokes to ease assembly and disassembly.

### GEARBOX

Cast steel housing with case hardened nickel chrome alloy steel gears. Carbon steel spindle supported by tapered roller bearings.

### TRANSMISSION

HRM180 is supplied with an A4 series PTO Drive Shaft for 540 rpm tractor PTO. For protection of tractor and implement against shock loads, V belts transmit power between the pulleys.

### BLADE DRIVE

'B' section V belts from gearbox pulley to three spindle pulleys. Tensioned by a primary tensioner and two spring-loaded jockeys rollers.

### BLADES

Three spring steel blade beams each fitted with two aerodynamically designed spring-steel stepped swing-back blades.

### HEIGHT ADJUSTMENT

Elongated holes in the fixed side skids allow infinite 1 - 9 cm setting of cutting heights.

### ROLLERS

HRM180 is fitted with front and rear rollers, thereby totally enclosing the cutting chamber. This added safety feature also prevents "scalping" and facilitates neat cutting over kerbs and hollows.

### SAFETY

### Equipment

Rollamowa and Tractor against operational abuse are in-built standards on all **HOWARD** implements.

### Surroundings

Side skids left and right - together with front and rear rollers - will retain flying objects inside the cutting chamber.

### Warning

- HOWARD Rollamowas are powerful mechanical implements.
- Utmost care must be exercised when handling such equipment.
- To minimise risks, Owners and Operators are strongly recommended to familiarise themselves with the contents of this manual.

Your ROLLAMOWA has been designed to work in a wide variety of conditions, and is a very simple machi me to use. There are one or two adjustments which ensure optimum performance in all conditions.

The ROLLAMOWA is three point linkage mounted, and should be coupled to your tractor as follows:

- Before mounting the ROLLAMOWA to the tractor, ensure the stabiliser bars and adjustable top link are
  fitted to the tractor. It is essential that the ROLLAMOWA should be able to ride easily over obstacles.
  There must therefore, be no downward pressure from the tractor's hydraulic system, and all "down
  pressure" pins or means of applying downward pressure should be removed. On many tractors the lift
  rods have an adjustable collar for exerting such pressure. This collar must be moved to its lowest position
  so that both lift rods may "float" and allow the ROLLAMOWA to lift should it hit an obstacle.
- Mounting must take place with the tractor and ROLLAMOWA on level ground. (All directions given are from the rear of the machine).
- The ROLLAMOWA is not recommended for fitment to Cat. II tractor but if desired, Cat II sleeves are available.
- Ensure the stabiliser bars or chains are fitted to the tractor lift arms before commencing mounting procedures.
- On tractors fitted with rigid full length stabiliser bars, fit the stabiliser bars over the ROLLAMOWA mounting pins, leaving the front of the bar on the ground.
- Slaken off stabiliser chains or remove sway bars to allow fitment of lift arms to the hitch pins.
- Back the tractor up to ROLLAMOWA till it is positioned relative to tractor power take off shaft and linkage points.
- Connect lift arms in the following order:

Left hand lift arm to left mounting pin.

Right hand lift arm to right mounting pin.

- Adjust both lift arms till they are firm against the mounting pin shoulders and secure with Cotter Assembly.
- Adjust the tractor top link to approximate length and attach to front support arms and secure with hitch pin.
- Adjust tractor top link till enough slack is obtained in the chain backstays to allow the ROLLAMOWA to "float" over the ground undulations.
- Raise the ROLLAMOWA approximately 150 mm above the ground and level it by adjusting the right hand tractor lift rod so that the front and rear rollers are parallel to the ground.
- 4. Connect the universal drive shaft to the tractor power take off ensuring the release pins are located in the p.t.o. groove and the safety cover does not foul the tractor power take off guard. It is important that the two sections of the drive shaft do not, at any position in the lifting arc, close right up, nor become disengaged ensuring that there is a minimum engagement of 25 cm.
- Now, raise and lower the ROLLAMOWA to ensure the drive shaft does not jam or become disengaged.
- Adjust stabiliser bars or chains to give a maximum 50 mm side way swing at the rear of the machine.
- If rigid stabiliser bars are fitted, connect the forward end to the tractor.

### OPERATING INSTRUCTIONS

### Warning:

Do not get off the tractor with the engine running. Ensure the tractor is turned off before making any adjustments to the ROLLAMOWA. Be aware of, and avoid or remove, any known obstructions such as stumps, stones, bottles, tins, etc., before commencing works.

### Caution:

- If operating alongside public highways, or in parks and gardens, inspect surface and remove any stones, bottles, tins, etc., for maximum protection to property and persons.
- Never carry a "passenger" on the tractor or an attached implement at any time.
- Discourage spectators when operating in public areas.

Set the cutting height by lifting the ROLLAMOWA on the tractor hydraulics and adjusting side skids to required position.

Lower the ROLLAMOWA and engage the p.t.o. with the tractor operating at the required r.p.m. move off at a travel speed to suit the conditions. (Excessive speed will cause bumping and skip cutting).

### After Initial Four Hours Worked

- 1. Check tightness of all bolts and nuts.
- 2. Drain and flush out gearbox, refill with SAE140 gear oil.

### Daily or Every Eight Hours Worked

- Separate the two sections of the universal drive shaft, clean well and smear with graphite or molybdenum disulphide grease.
- Grease universal joints (Cross Journals) with lithium based grease.
- Check gearbox oil level and replenish if necessary, use SAE140 gear oil.
- Check blades for wear or damage, replace if necessary, also check blade bolts and beam mounting bolts for tightness.
- 5. Check skid mounting bolts for tightness.
- Check belt tension, max. deflection 12 mm at centre.

### **Every 250 Hours Worked**

- 1. Drain and flush out gearbox, refill with SAE 140 gear oil.
- 2. Inspect universal joint needle bearing. Replace joints if badly worn.

# AVOID CUTTING TOO LOW AS SCALPING WILL OCCUR ON UNDULATING GROUND

# Service Diagnosis

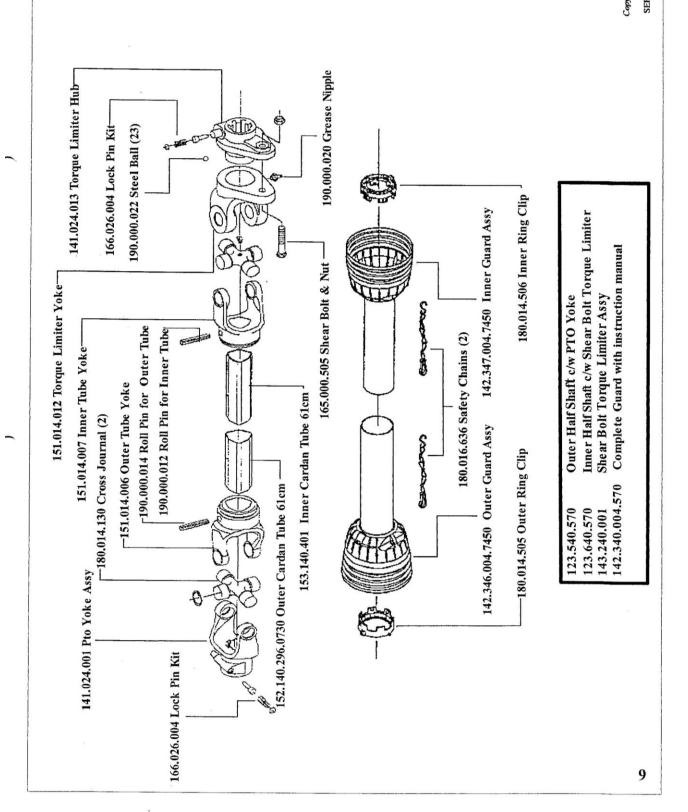
Assembly	Defect	Possible cause
PTO Drive Shaft	Vibration	<ul> <li>due to twisted inner or outer shaft</li> <li>collapsed needle rollers in p.t.o universal joint assemblies (Cross Journal)</li> <li>lifting machine too high when PTO Drive Shaft is still engaged.</li> </ul>
Gearbox Assembly	Excessive noise	due to incorrect backlash between crownwheel and pinion     worn or loose bearings in gearbox
	Oil leaking from gearbox	<ul> <li>due to worn or damaged input shaft seal</li> <li>blocked or damaged breather/breather hole in dipstick (in gearbox)</li> <li>due to wrap up of crop around output shaft damaging the output shaft oil seal</li> </ul>
	Insufficient oil in gearbox	- due to damaged or worn output shaft oil seal
Blade Beam and Blades	Vibration	<ul> <li>due to loose blade beam mounting</li> <li>due to damaged or unevenly worn blades</li> <li>due to excessively loose or damaged output shaft bearings</li> </ul>



# Service Guide DRAIN SPINDLE HOUSINGS, FLUSH AND REFILL WITH copyright HOWARD CHECK AND TIGHTEN ALL BOLTS AND NUTS. **EVERY 250 HOURS WORKED** CHECK BELT TENSION. WEEKLY 816/03/01 DAILY CHECK GEARBOX OIL LEVEL. 125 ml SAE 140 GEAR OIL. **EVERY 250 HOURS WORKED** DRAIN GEARBOX, FLUSH AND REFILL WITH GREASE ROLLER BEARINGS. DAILY 1 LITRE SAE 140 GEAR OIL. DO NOT OPERATE WITHOUT SAFETY GUARDS FITTED TIGHTEN BLADES AND BLADE HEAD BOLTS. CHECK FOR BROKEN OR WORN BLADES. AND INNER & OUTER CARDAN TUBES. **EVERY 250 HOURS** GREASE THE CROSS JOURNALS INSPECT CROSS JOURNAL GREASE PIVOT BRACKETS. MPORTANT: DAILY FOR WEAR. 8

# ROLLAMOWER HRM 180

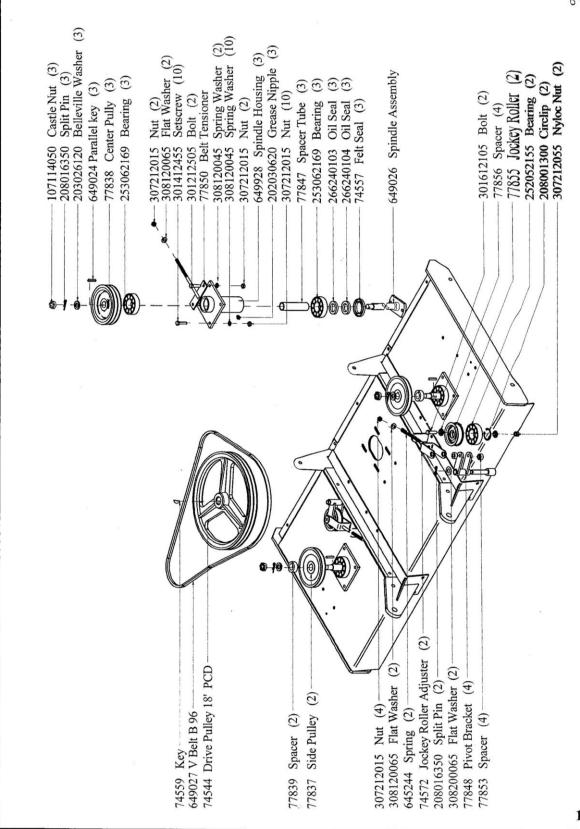
*Universal Driveshaft A4* T400610EN112B02



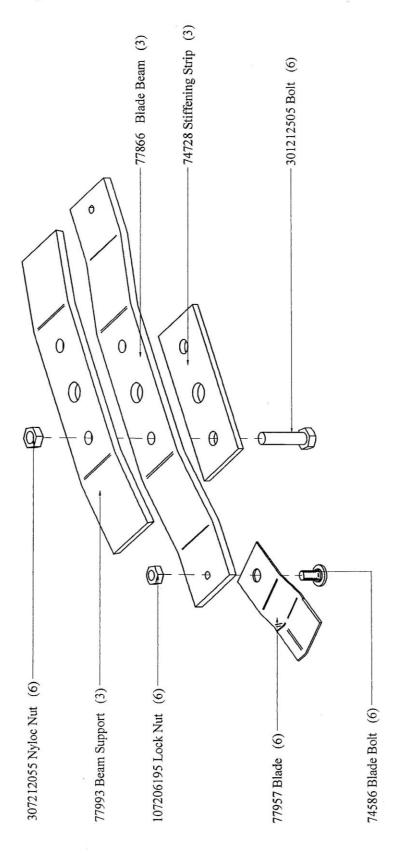


e <b>arb</b> 3.140.					Shim Kit	Bearing Snlit Pin	Castle Nut	Spacer	Pinion Z14	Shim Kit	Bearing	Bearing		Output Shaft		Double Lip Seal	Protective Washer	Washer	Split Pin	Castle Nut	copyright HOWARD
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			, , , , , , , , , , , , , , , , , , ,			37									(2)	(4)	(4)	r (4)			HRM180 Gearbox Assembly
(3)		(2)	(2)		(2)										Plug	Bolt	Nut	Spring Washer	1	1	Part No. 918.140,004
Setscrew	Cover	Bolt	Spring Washer	Clutch Cover	Bush	Crownwheel Z27	Input Shaft	Bearing	Shim Kit			•	Oil Seal	Circlip	203031180	301220605	307220015	308200045	140.030.000		Part N
301408165	140.130.000	301208405	308080045	702636	702295	100	140.200.000	253572181	248.750.000				267235103	222027050							

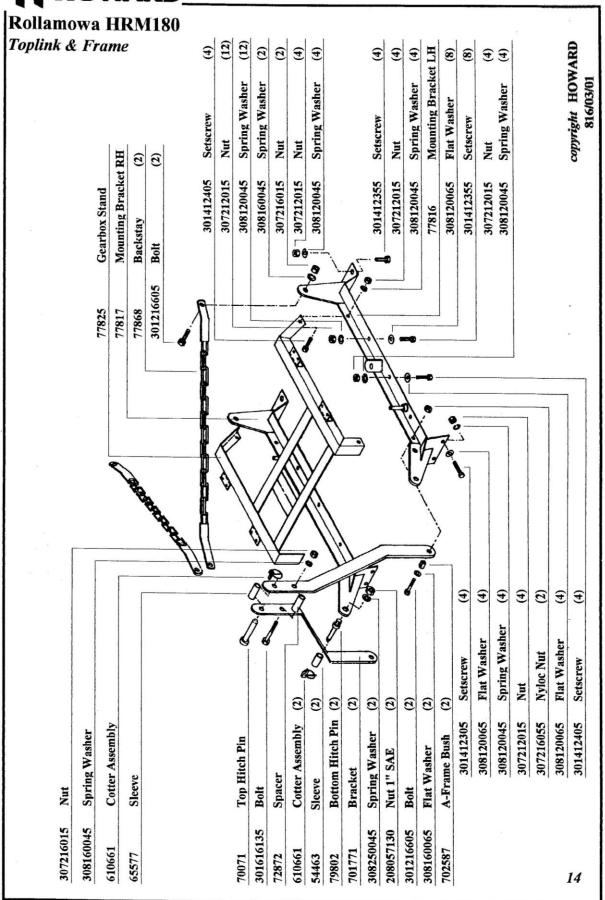
### ROLLAMOWA HRM 180 Pulley Assembly



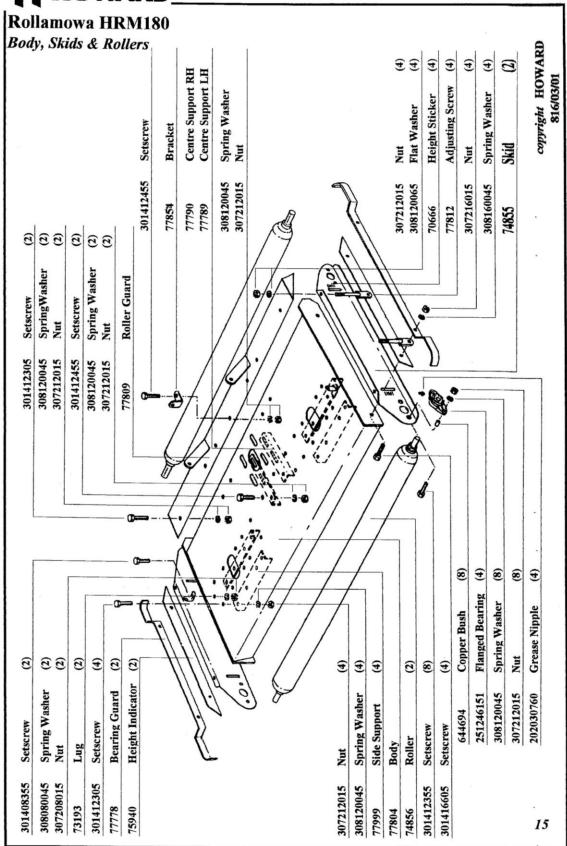
ROLLAMOWA HRM180 Blade Beam Assembly



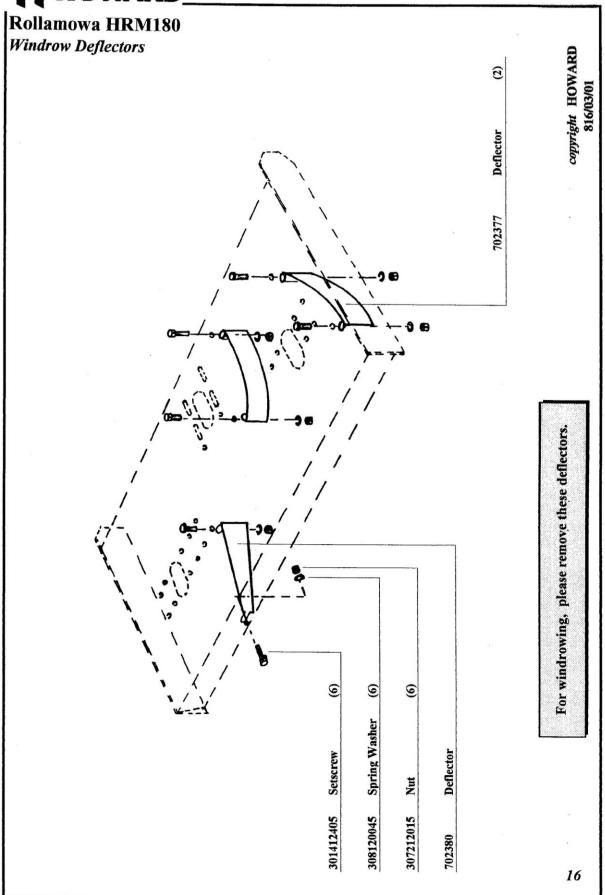








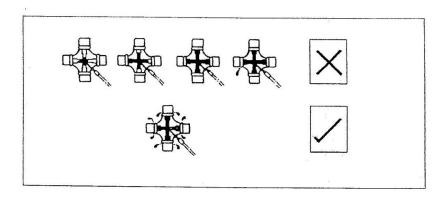




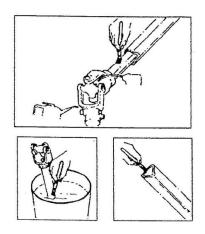
### **MAINTENANCE**

### OF UNIVERSAL DRIVESHAFT

- 1. Recommended use high quality grease LITHIUM BASE (type NL G2).
- 2. Make sure to pump grease into the cross journal nipple until the grease came out from all cups.



- 3. Make sure to dismantle both shaft assembly and then to brush at surface of inner and outer shaft with GRAPHITE POWDER OR MOLYBDENUM DISULPHIDE GREASE.
- 4. Difficulty to move the inner and outer shaft when operation will cause the serious damage to the shaft or output tractor shaft. If the surfaces of inner and outer shaft are dirty, we advise customer to clean it twice per day.



5. Please refer to the PTO owner's manual for further understanding.

### HOWARD DEALERS & SPARE PART STOCKISTS

#### PERLIS

PPN Perlis, Kangar Sin Keat Seng, Kangar PPK Mata Ayer, M.Ayer

### KEDAH

Nafas Jentera, A.S. Pertanian Utara, A.S. Sime Darby Ind, A.S. Hock Lean, Jitra TAE, Jitra TAE, Pendang Utara Agritrak, A.S.

### PULAU PINANG

Eik Seng, B'worth Kien Seng, B'worth Sime Darby Ind, S. Prai Sime Kubota, B'worth TCIM, B'worth UMW, B'worth

#### PERAK

Benefarm, Ipoh Felcra Process, ess, Kg. Gajah PPN Perak, Ipoh Kej. Pertanian, T. Intan Overseas Union, T. intan Sime Kubota, T.Intan Sime Darby Ind, Ipoh TCIM, Ipoh UMW, Ipoh

#### SELANGOR

BH Agri, K.L Palm Mach, Kepong Yik Soon, Kepong Yik Soon, Kepong Teck Seng, Sg. Besi Puncak Emas, B. Caves S.J.I, Klang Asia Turfquip, P.J. Bar Formula, P.J. Bar Formula, P.J.
Mareagsue, P.J.
Nafas Jentera, P.J.
Eurostar, Puchong
Minda Agri, Puchong
Sime Darby Ind, Puchong Sime Kubota, Puchong Sin Hup Hin, Sekinchan MZS Power, Shah Alam TCIM, Shah Alam UMW, Shah Alam

#### SABAH

LSC K.K. Kong Seng, K.K. Lensoon, K.K. Palm Mach, K.K. Sime Kubota, K.K. Sin Ngiap, K.K. TCIE, K.K. Sime Darby, K.K. UMW, K.K. Wilpors, K.K. Win Hin, K.K Sime Darby, Lahad Datu All Planters, Lahad Datu ATSB, Lahad Datu Benefarm, Lahad Datu Eurostar, Lahad Datu Palm Mach, Lahad Datu Nafas Jentera, Lahad Datu Sime Kubota, Lahad Datu Solid Firm, Lahad Datu TCIE, Lahad Datu Sime Darby, Labuar ATSB, Sandakan Benefarm, Sandakan Bri-Trail, Sandakan Eurostar, Sandakan Hup Seng, Sandakan Intan Karang, Sandakan TCIE, Sandakan Sime Darby, Sandakan Sime Kubota, Sandakan UMW, Sandakan

### LP Tractors, Tawau Sime Darby, Tawau UMW, Tawau NEGERI SEMBILAN

Bahau Auto, Bahau Emdek, Seremban TCIM, Seremban

Wilpros, Sandakan

ATSB, Tawau

Eurostar, Tawau

### MELAKA

CS Agriparts, T.M .Jaya TCIM, T.M. Jaya Sime Darby, T.M. Jaya PPN Melaka, Melaka Segamat Agri, Krubong

### **JOHOR**

Asia Turfquip, J.B Hock Guan Hin, J.B. Seriintan, J.B. TCIM, J.B. Teck Seng, J.B. Sime Darby Inds, J.B. UMW, J.B. Ah Bee, Kluang Hiap Thye, Kluang Kang Sang, Kluang Kluang Berjaya, Kluang Maju Estate, Kluang Nafas Jentera, Kluang Palm Mach, Kluang Sime Darby Inds, Kluang Eurostar, Segamat Kian Huat, Segamat Segamat Cycle, Segamat Wabco, Skudai JVR, Ulu Tiram

### KELANTAN

Bogam K B Hock Hoe Hin, K.B. K.B. Jaya, K.B. Eurostar, G. Musang Palm Mach, G. Musang Lea Thong, K.B. Minda, K.B. Nafas Jentera, K.B. Sime Darby Inds, K.B. PPK K. Sepat, P.Mas Sime Kubota, W. Bharu

### TERENGGANU

J & J Machinery, K.T. KPT Peladang, K.T. K.T. Inds, K.T. Nafas Jentera, K.T. TADC, K.T. UMW, K.T.

### PAHANO

Yi Cheng, Gambang Eurostar, Kuantan Nafas Jentera, Kuantan Sime Kubota, Kuantan TCIM, Kuantan Tractors M'sia, Kuantan UMW. Kuantan M'tab Agri, Mentakab

### SARAWAK

Benefarm, Miri Sime Kubota, Miri TCM. Miri Sime Darby, Miri UMW, Miri Intan Karang, Bintulu Pan Sarawak Bintulu Sime Kubota, Bintulu Sime Darby, Bintulu UMW, Bintulu Benefarm, Kuching JN Inds, Kuching Sime Kubota, Kuching TCIM, Kuching Sime Darby, Kuching UMW, Kuching Pan Sarawak, Sibu Sime Kubota, Sibu TCM, Sibu Sime Darby, Sibu Pansar, Sibu

UMW. Sibu

Rawang

### BRUNEI Hock Hung Hing, BSB MPS Trading, BSB

### Tractors M'sia, BSB INDONESIA

Agrisarana Altrak 1978 Bina Pertiwi Pioneer Trading Probesco SAHABAT Agritama Satrindo Traktor Nusantara Canella, Medan SAHABAT, Medan

### SINGAPORE

ATS Tractors S'pore UMW

### PHILIPPINES

Alpha Machinery KAMPI Major Tractors, Davao Sime Darby Up-Town, Pasig City

### THAILAND

Phong La-or Patana Suptawee

INDIA

### Farm Implements

SRI LANKA Brown & Co.

Hovael

BANGLADESH PAKISTAN VIETNAM / CAMBODIA

From Ipoh

**Bukit Beruntung** 

Sungai Choh









Noormah Export &Shipping



Wan Ramli Sales



Shafiq Sales



From K.L.

Exit 116

Bala Service Manager



I KM

North - South Highway

外HOWARD

Batu 20

Ismail Service



C.K. Lim Parts Manager





Rafi Production Manager



Ibrahim



Maarof Foreman Assembly



Keshal Engineer



Yamin Engineer



Samsol Training & Demo

ADMINISTRATION & QA



Diana



Zamary



Draughtsman



Mustafa Material QC





A. Nielsen Managing Director



## HOWARD



In Southeast Asia since 1962



Distributor:

### HOWARD Alatpertanian Sdn. Bhd. (30189-A)

2, Jalan Perusahaan Tiga, Batu 20, 48000 Rawang, Selangor Darul Ehsan, Malaysia.

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e-mail: howardmy@tm.net.my

www.howardmy.com