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**DEUTSCHER HE660**



**OWNER'S INSTRUCTION MANUAL  
AND PARTS LIST**

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### **HE660 Models**

|       |  |
|-------|--|
| 36157 | HE660 Deutscher Honda GXV340 Limited slip differential                 |
| 36257 | HE660 Deutscher Honda GXV340   |
| 36258 | HE660 Deutscher Honda GXV390 Electric Start                            |
| 36158 | HE660 Deutscher Honda GXV390 Electric Start. Limited slip differential |

## ASSEMBLY INSTRUCTIONS

### HANDLE ATTACHMENT *(Pre delivery) (Refer to Figure 1)*

1. Connect the handles to the side rails of the chassis using four 75mm M8 bolts. Fasten the four nuts securely. Inset rods 'A' through the holes in the levers 'B' and secure with R clips.
2. Fully loosen nut 'C' and connect rod 'D' to the drive clutch lever 'E' using a washer and split pin. Retighten nut 'C'.
3. Connect the rod 'G' to the foot pedal assembly 'H' using a washer and split pin.
4. Connect the height adjusting rod 'J' to the straight lever 'K' as shown, using the bolt 'I' and the nut and washer provided.

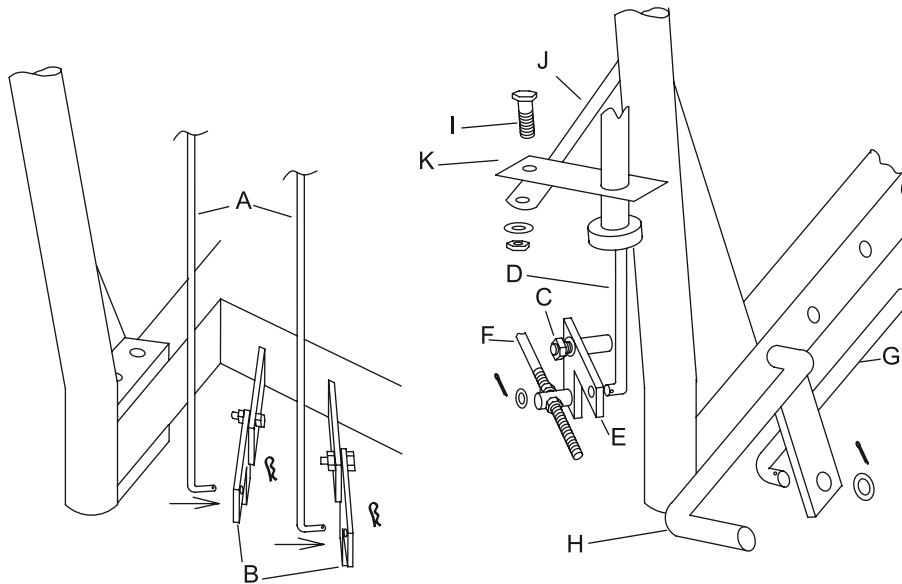


Fig. 1 - Dealer Assembly

## ASSEMBLY INSTRUCTIONS

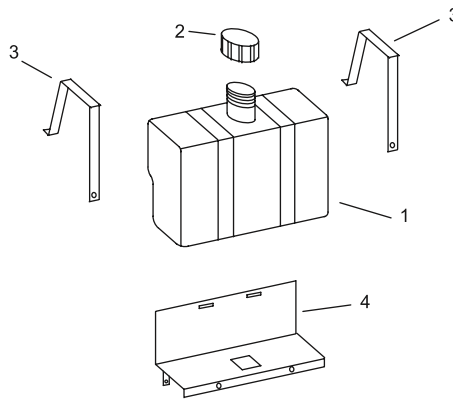
5. **See Figure 2.** Place tank straps "3" in the tank bracket "4" slots and bend tabs up and back against the bracket. Place the fuel tank in position and attach the straps at their lower end using two 6mm bolts.

6. Connect the fuel line from the engine to the nipple underneath the tank. Use pliers to raise the loose hose clamp to secure the hose to the tank..

7. Insert the throttle lever through the slot in the center of the control panel then attach the throttle control to the underside of the control panel using the two screws provided. Ensure both "choke" and "stop" positions are achieved using the throttle lever. Push the " T " shaped plastic knob onto the throttle lever.

8. Electric start models. Insert the key-switch through the "D" shaped hole in the rear of the control panel and secure it with the spring washer and nut provided.

Remove the battery from the battery box and fill it with battery acid (not supplied) to 1-2 mm above the plates. Clean any spilled acid from the battery then install the battery in the mower. Ensure that the negative terminal is connected to the frame of the mower (earth). Wait 20 minutes for the battery to charge before attempting to start the mower. You do not need to connect it to a charger.



*Fig. 2 - Fuel Tank Attachment*

### **ENGINE PREPARATION** *(Pre delivery)*

1. Remove the dipstick and check the oil level as per the instructions in the engine manual.

2. Add unleaded petrol to the petrol tank.

3. Read and abide by the Safety Instructions listed below then follow the starting procedure listed in the Operation section. Check there is no abnormal vibration, and that the gear lever, forward drive lever, height adjustment lever and blade clutch are functioning satisfactorily.

## SAFETY INSTRUCTIONS



### **BEFORE STARTING:**

- Know your controls. Read the owners manuals thoroughly. Learn how to stop the engine quickly in an emergency.
- Inspect the area to be mown, remove all debris and obstacles that may be in the path of the mower. Do not attempt to shift obstacles while the mower is running.
- Damaged blades and worn bolts are major hazards. Before starting, always visually inspect to see that blades, blade bolts and cutter assemblies are not worn or damaged.
- Replace worn or damaged blades and bolts in sets to preserve balance.
- Refuel outdoors only and away from all sources of ignition, including pilot lights in gas appliances. Do not smoke while refuelling the engine. Add fuel before starting the engine. Never remove the cap from the fuel tank or add petrol while the engine is running or the engine is hot. If petrol is spilled, do not attempt to start the engine but move the machine away from the area of the spill and avoid creating any source of ignition until the petrol vapours have dissipated.
- Do not allow children or people unfamiliar with these instructions to use the mower.
- With prolonged use, hearing protection should be worn.
- Never mow while barefoot or wearing open sandals, or thongs. Wear long trousers and heavy shoes.
- Apply sunscreen; wear appropriate clothing, a hat and sunglasses to avoid sunburn.
- It is advisable to wear suitable eye protection when operating the mower.

### **STARTING - Safety Instructions:**

- Disengage all blades and drive clutches and shift the gear lever into neutral before starting the engine.
- Start the mower carefully according to the instructions on page 8, with feet well away from blades and not in front of the discharge chute.

### **OPERATION - Safety Instructions:**

- Never mow while people, especially children or pets, are nearby.
- Mow only in daylight or in good artificial light. Stay alert for holes in the terrain and other hidden hazards.
- Never direct discharge material towards bystanders.
- Avoid operating the equipment in wet grass, where feasible.
- Do not put hands and feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Never lift or carry a mower while the engine is running.

## SAFETY INSTRUCTIONS

- Use extreme caution when reversing or pulling the mower towards you. Ensure your footing is stable and be especially careful in uneven terrain.
  - Do not attempt to ride the mower.
  - Walk, never run.
  - Slopes:
    - Do not mow excessively steep slopes.
    - Exercise extreme caution when on slopes.
    - Mow across the face of slopes, never up and down, and exercise extreme caution when changing direction on slopes.
  - Use low throttle settings when engaging the ground drive, especially in "high" gear.
  - Reduce speed on slopes and in sharp turns to prevent overturning or loss of control.
  - Stop the blades when crossing surfaces other than grass and when transporting the mower to and from the area to be mowed.
  - Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
  - Stop the engine:
    - Whenever you leave the mower, even for an instant.
    - Before re-fuelling.
  - Stop the engine and disconnect the spark-plug lead, or turn off and remove the key (if fitted):
    - Before clearing blockages or unclogging chute
    - Before checking, cleaning or working on the mower
- \*After striking a foreign object, inspect the mower for damage and make repairs before restarting and operating the mower. If mower starts to vibrate abnormally, stop the engine immediately.
- Watch out for traffic when crossing or near roadways.
  - Before leaving the operator's position:
    - Disengage the cutter engagement lever.
    - Change into neutral and set the parking brake.
    - Stop the engine and or remove key.

**Do not modify the mower in any way, or use the mower without the shields and guards in place. They are for your protection.**

## ROUTINE CARE & STORAGE

- Keep all nuts, bolts and screws tight to ensure the equipment is in a safe working condition.
- Do not use pressure-cleaning equipment.
- Never store the equipment with petrol in the tank inside a building where fumes can reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the engine, silencer, battery compartment and petrol storage areas free of grass, leaves, or excessive grease.
- Replace worn or damaged parts for safety;
- Replace faulty silencers.
- If the fuel tank has to be drained, do this out-doors and away from all ignition sources.
- Do not change the engine governor settings or over speed the engine. Operating an engine at excessive speed can increase the risk of personal injury and cause premature engine failure.
- Be careful during adjustment of the mower to prevent entrapment of the fingers between moving blades and fixed parts of the mower.
- Store fuel in a cool place in a container specifically designed for the purpose. In general, plastic containers are unsuitable.
- Lower the cutting deck when the mower is to be parked, stored or left unattended.

### SPECIFICATIONS:

ENGINE: Honda GXV340 recoil start or GXV390 electric start engines are used. See engine owner's manual supplied with the mower.

GEARBOX: Deutscher gearbox houses two forward gears, a reverse gear and a differential in an oil bath alloy housing.

Recommended oil: EPX 85w/140  
Capacity: 750ml

SPEED RANGE: Low gear: 2.2 kph @ 2500rpm.  
High gear: 3.6 kph @ 2500rpm.  
Reverse gear: 1.7 kph @ 2500rpm.

TYRES: Rear: 13-500-6 Pressure, 20psi  
Front 250 x 4 Pressure, 20psi

CUTTING HEAD: 660mm cut, 2 x blades,  
6 cutting height positions from 25mm-85mm.

GENERAL: Length:1600mm  
Width: 640mm  
Height: 960mm  
Weight: 120kg

## OPERATION

### CONTROLS:

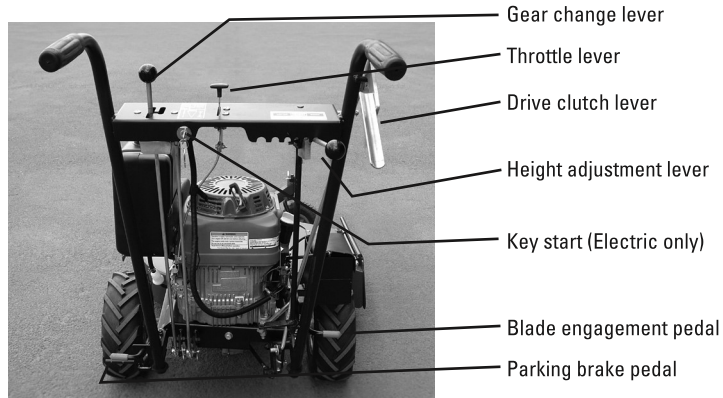


Illustration 1

### PRE-START CHECK

Your Deutscher Mower comes to you tested and ready to operate, with engine and gearbox filled with oil.

- Read all safety instructions and know how to stop engine quickly in any emergency.
- Know your controls – Where they are and their function.
- Use fresh unleaded petrol. Do not mix oil with petrol.
- Ensure drive and cutter mechanisms are placed in neutral or disengaged.

### OPERATION:

#### TO START THE ENGINE (*Manual start*):

- When engine is cold, move throttle lever to CHOKE position.
- When engine is hot, move throttle lever to high throttle position.
- Slowly pull starter cord until starter pawls engage and rope stops, then pull with force to turn the engine over. Repeat this procedure if the engine does not start.

Once the engine is running shift the throttle lever to the desired operating position

#### TO STOP THE ENGINE (*Manual start*):

- Push throttle lever to the STOP position.

#### TO START THE ENGINE (*Electric start version*):

- When the engine is cold, move throttle lever to the CHOKE position.
- When the engine is hot, move the throttle lever to the FAST throttle position.
- Turn the key fully clockwise to the start position and release the key as soon as the engine is running.
- Once engine is running, shift throttle lever from Choke position to desired operating position.

Note: If the mower fails to start first time, allow the starter a short time to cool before re-trying.

#### TO STOP THE ENGINE (*Electric start version*):

- Turn key fully anticlockwise.



## OPERATION

### TO DRIVE MOWER (See Illustration 1 on Page 8):

- Release park brake.
- Select gear (See Illustration 2)
  - Low forward: Pull lever backward.
  - High forward: move lever forward.
  - Reverse: Move to right, then forward.

Note: Pushing the mower forward slowly while operating the gear lever may improve the ease of gear selection.

- Grasp the drive clutch lever with your right hand and slowly raise it to the hand grip. Release to stop.

**WARNING! Use low throttle settings when engaging the drive-clutch lever, especially in high gear.**

### TO ENGAGE CUTTER DRIVE:

- Set the throttle to at least a mid range position to prevent stalling when the cutter is engaged.
- Place your right foot on blade engagement lever and press down slowly until the pedal locks into position.
- To release, lift the lever up with right foot.

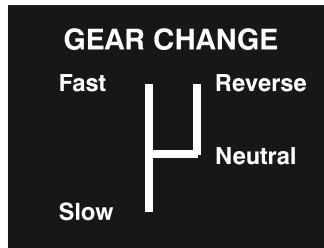


Illustration 2

### MOWING ACROSS SLOPES AND REVERSING:

- As mentioned in the Safety Instructions, reduce speed on slopes and in sharp turns to prevent overturning and loss of control. Mow across the face of slopes, never up and down.
- Wear suitable boots for the terrain. Do not continue mowing if you are slipping while walking. Exercise extreme caution if the grass is damp.
- Do not mow an area with a slope greater than 10 degrees to the horizontal.
- When parking a mower on a slope, ensure the engine is turned off AND THE PARKING BRAKE IS ENGAGED, before leaving the mower. This applies even if you leave the mower for an instant.
- Be extremely cautious when reversing. This is particularly important on slopes. Wear non slip footwear and keep well back from the mower to ensure your footing is steady. Instantly release the drive lever if you feel yourself slipping.

### TRANSPORTING AND LIFTING THE MOWER:

It is far safer to use ramps or a lifting device to put the mower onto a trailer or utility tray, rather than attempting to lift it. Never attempt to lift the mower on your own.

# MAINTENANCE

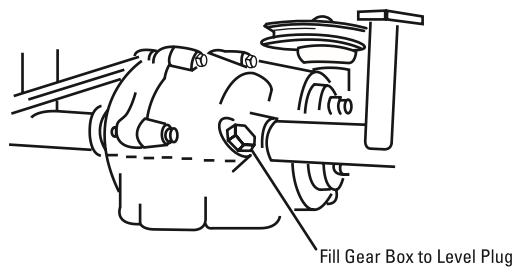
## MAINTENANCE

| LUBRICATION CHART       |                        |             |       |        |
|-------------------------|------------------------|-------------|-------|--------|
|                         | Lubrication            | Daily       | 20hrs | 100hrs |
| Engine                  | Refer to Engine Manual |             |       |        |
| Gearbox Check           |                        |             | x     |        |
| Gearbox Change          | Gear Oil               | EPX 85w/140 |       | x      |
| Kingpins                | Oil                    |             | x     |        |
| Cutter Deck slides      | Grease                 |             | x     |        |
| Gear Control linkages   | Oil                    | x           |       |        |
| Clutch Control linkages | Oil                    | x           |       |        |
| Height Control linkages | Oil                    | x           |       |        |
| Throttle Cable          | Oil                    |             | x     |        |

## GEARBOX

Use gear oil 85w/140

Capacity = 750ml



*Illustration 3*

## MAINTENANCE

### GEARBOX BELT (Replacement): (See Illustration 4)



- Before any inspection or replacements of the belts and associated parts, turn engine off and pull spark plug lead off the spark plug.
- Be careful during adjustment of the mower to prevent entrapment of the fingers between moving blades, pulley's and fixed parts of the mower.
- Remove belt guide. (Part No 3228) by fully unscrewing the 8mm bolt shown in illustration 4.
- Remove nut "A" from the adjustment pivot and release the rod from the crank arm.
- Remove the belt from the pulleys and slide it over the clutch adjustment rod.
- To fit a new belt, place the belt over the clutch adjustment rod and wrap it around the gearbox, idler & engine pulleys.
- Reconnect adjustment pivot to crank arm and tighten nut "A".
- Refit belt guide. (ensure guide is bolted on the inside of the engine mounting plate)
- Adjust clutch: See below.

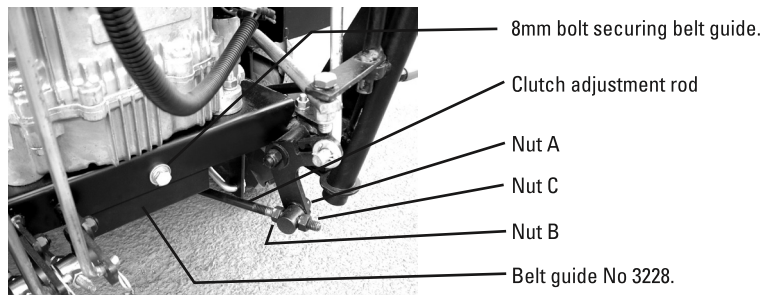


Illustration 4

### CLUTCH ADJUSTMENT FOR TRANSMISSION: (See Illustration 4)

- To Increase belt tension, loosen nut "C" and tighten nut "B".
- Make sure the belt is entirely free when the clutch lever is disengaged and that the lever requires little force to hold against the handgrip.
- DO NOT OVER-TIGHTEN THE BELT. ONLY A LIGHT TENSION IS NECESSARY FOR DRIVING THE MOWER.

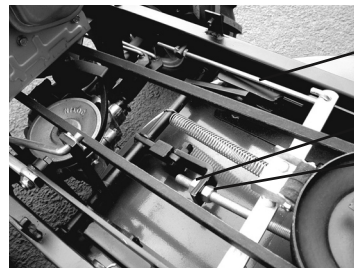
### CUTTER BELT (Replacement) (See illustrations 1, 4 and 5):



- Before replacements of the belts and associated parts, turn the engine off and pull the spark plug lead off the spark plug.
  - Be careful during adjustment of the mower to prevent entrapment of the fingers between moving blades, pulleys and fixed parts of the mower.
  - Remove belt guide, P/No 3228, by unbolting it from the engine mounting plate.
  - Remove the gearbox belt from engine pulley as described above.
  - Ensure the blade engagement pedal is disengaged.
  - Move the cutter height lever to mid height position.
  - Loosen "D" nut and the 6mm nuts on the brake arm, to ensure the belt is loose. (See illustrations 5)
  - Remove the old belt and replace with a new belt, feeding it around the pulleys and keeping the belt on the inside of the guide pins under the engine plate.
  - Place the blade engagement pedal in the engaged position and adjust the belt tension by adjusting nuts "D" & "E".
- DO NOT OVER TIGHTEN THE BELT !

## MAINTENANCE

- Adjust the cutter brake to ensure the cutter spindle stops when the belt is disengaged. (See next section)
- Replace the gearbox belt and refit the belt guide. (Note: Belt guide is bolted the inside of the engine mounting plate (See illustration 4).
- Run and test, to ensure all adjustments are correct.



Brake arm. Adjust using two 6mm nuts on the arm so the brake pad firmly contacts the pulley when the belt is released to the point where it no longer drives the blade.

Nut E

Nut D

Illustration 5

### CUTTER BRAKE (Adjustment): (See Illustration 5)



- Before replacement of belts and associated parts, turn engine off and pull spark plug lead from the spark plug.
- Be careful during adjustment of the mower to prevent entrapment of the fingers between moving blades, pulleys and fixed parts of the mower.

- Loosen the 6mm nuts on the brake arm and adjust the rod forward until the brake pad prevents cutter pulley from rotating when cutters are disengaged.
- Make sure the brake pad is 1-2mm clear of the cutter pulley when the blade drive pedal is engaged.
- Tighten the 6mm nuts on the brake arm against both sides of the pivot that protrudes through the chassis.

### BLADES:



- Before any inspection or replacements of the blades and associated parts, turn the engine off and pull the spark plug lead off the spark plug.
- Be careful during adjustment of the mower to prevent entrapment of the fingers between moving blades and fixed parts of the mower.

- It is important that you visually inspect the blades, bolts and nuts to ensure that they are in a safe operating condition; this should be done before each mowing period.
- Always replace blades and bolts in kit form to prevent any vibration that may damage the mower and cause personal injury.

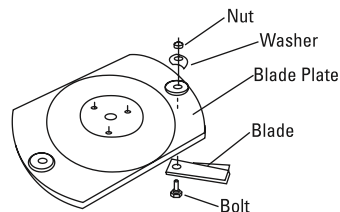
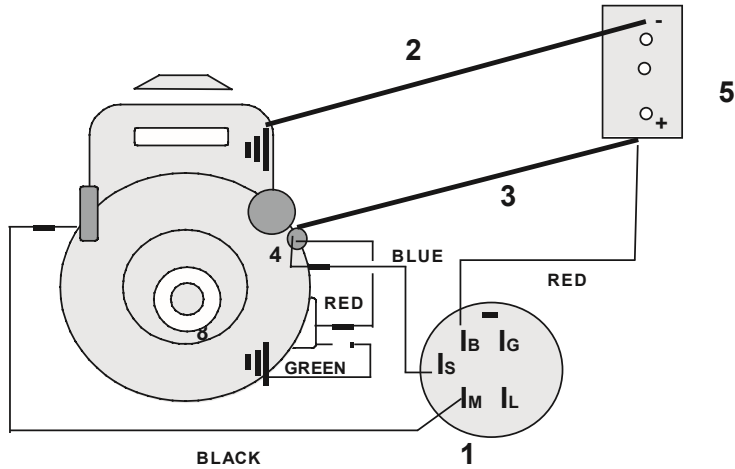


Illustration 6

## WIRING DIAGRAM

### HONDA GXV390 RT1 DAEU

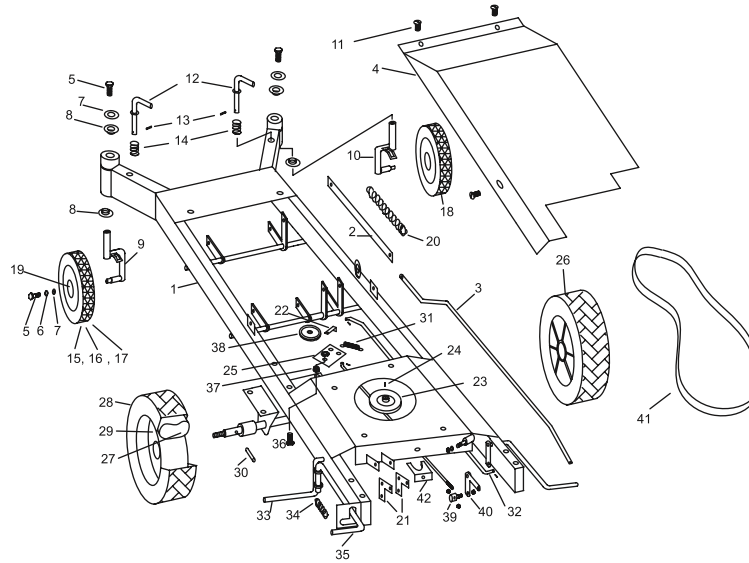


| Item | Part No. | Part Description   |
|------|----------|--------------------|
| 1    | 1261     | Key Switch         |
| 2    | 1368     | Battery lead 330mm |
| 3    | 1373     | Battery lead 250mm |
| 4    | 3415     | Loom assembly      |
| 5    | H315     | Battery 12 Volts   |

**WARNING: Incorrect wiring may result in damage to the engines electrical system. Only qualified and or competent electrical technicians should attempt any repairs or alterations.**

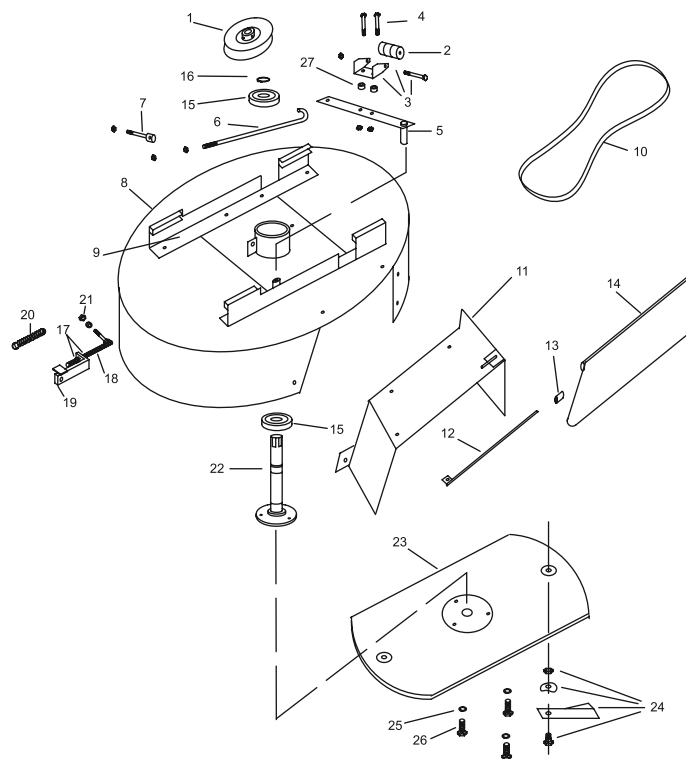
THE MANUFACTURERS RESERVES THE RIGHT TO ALTER, CHANGE OR VARY THE SPECIFICATIONS OF THE MOWER OR ANY OF THE COMPONENT PARTS AT ANY TIME WITHOUT NOTICE.

## CHASSIS



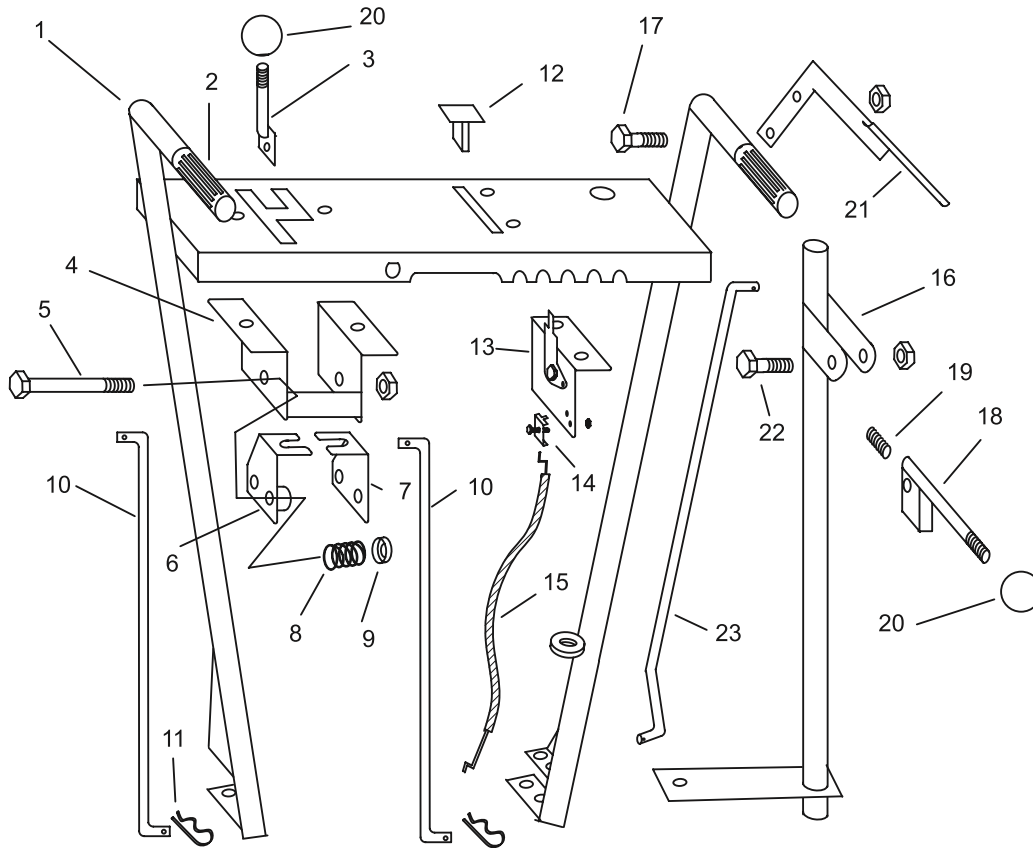
| Item No. | Part No | Part Description         | Item No | Part No | Part Description                  |
|----------|---------|--------------------------|---------|---------|-----------------------------------|
| 1        | 3339    | Chassis Assembly         | 23      | 3337    | Pulley, engine                    |
| 2        | 1463    | Connecting rod, front    | 24      | 1492    | Key                               |
| 3        | 3371    | Raise & lower rod, rear  | 25      | 1523    | Plate, clutch pulley              |
| 4        | 3307    | Top cover.               | 26      | 1350    | <b>Wheel complete (Bar tread)</b> |
| 5        | 1017    | Bolt 8mm x 20            | 27      | 1497    | Tube 13-500-6                     |
| 6        | 1018    | Spring washer 8mm        | 28      | 1732    | Tyre 13-500-6 (Bartread)          |
| 7        | 3015    | Flanged Bush             | 29      | HD123   | Rim assembly                      |
| 8        | 1472    | King pin & stub axle LH  | 30      | 1501    | Pin, axle drive                   |
| 9        | 1477    | King pin & stub axle RH  | 31      | 1846    | Spring                            |
| 10       | 1478    | Lock pin                 | 32      | 3370    | Rod, cutter engage                |
| 11       | 1477    | Flat head screw          | 33      | 3092    | Brake rod                         |
| 12       | 1478    | Lock pin                 | 34      | 1846    | Spring                            |
| 13       | 1479    | Roll pin                 | 35      | 3090    | Brake pedal, parking              |
| 14       | 1480    | Spring                   | 36      | 1495    | Bolt                              |
| 15       | 1481    | Tyre 250-4               | 37      | 1781    | Stepped bush                      |
| 16       | 1484    | Rim & bearings           | 38      | 1518    | Pulley (Clutch)                   |
| 17       | Y556    | Tube 250-4               | 39      | 1514    | Pin, pivot                        |
| 18       | H616    | <b>Wheel complete</b>    | 40      | 3087    | Arm, crank                        |
| 19       | 1484    | Bearing 6203             | 41      | 1579    | Gear box belt                     |
| 20       | 1487    | Spring                   | 42      | 3328    | Belt guard                        |
| 21       | 3312    | Gear change right angle  |         |         |                                   |
| 22       | 1488    | Belt guide, idler pulley |         |         |                                   |

## CUTTER ASSEMBLY



| Item | Part No     | Part Description          | Item | Part No      | Part Description                       |
|------|-------------|---------------------------|------|--------------|--|
| 1    | 1646        | Pulley                    | 16   | 1897         | Circlip                                |
| 2    | 2092        | Brake disc x 4            | 17   | 1244         | 12mm nut                               |
| 3    | <b>2093</b> | <b>Brake pad assembly</b> | 18   | 1558         | Push Rod                               |
| 4    | 5350        | Bolt                      | 19   | 2007         | Push rod connector                     |
| 5    | 3295        | Brake lever rod           | 20   | 1549         | Spring brake return                    |
| 6    | 1986        | Brake lever rod           | 21   | 1016         | Nyloc nut 12mm                         |
| 7    | 3255        | Brake rod pivot           | 22   | 3340         | Spindle & flange                       |
| 8    | 3379        | Cutter deck               | 23   | <b>1576</b>  | <b>Blade plate</b>                     |
| 9    | 3380        | Lift frame & spindle tube | 24   | <b>H650</b>  | <b>Blade, nut, bolt, washer X 2</b>    |
| 10   | <b>1578</b> | <b>Cutter belt</b>        |      | <b>H652</b>  | <b>Nut, bolt &amp; washer x 2</b>      |
| 11   | 3333        | Side chute assembly       | 25   | 1060         | Spring washer                          |
| 12   | 1541        | Hinge bar                 | 26   | 1304         | Bolt Blade plate attach                |
| 13   | 2095        | Plastic bush              |      | <b>HE661</b> | <b>Main Guard Inc chute &amp; flap</b> |
| 14   | 3305        | Discharge flap            |      | <b>3500</b>  | <b>Cutting deck complete</b>           |
| 15   | 1898        | Bearing, spindle 6205     | 27   | 2013         | Spacer bush                            |

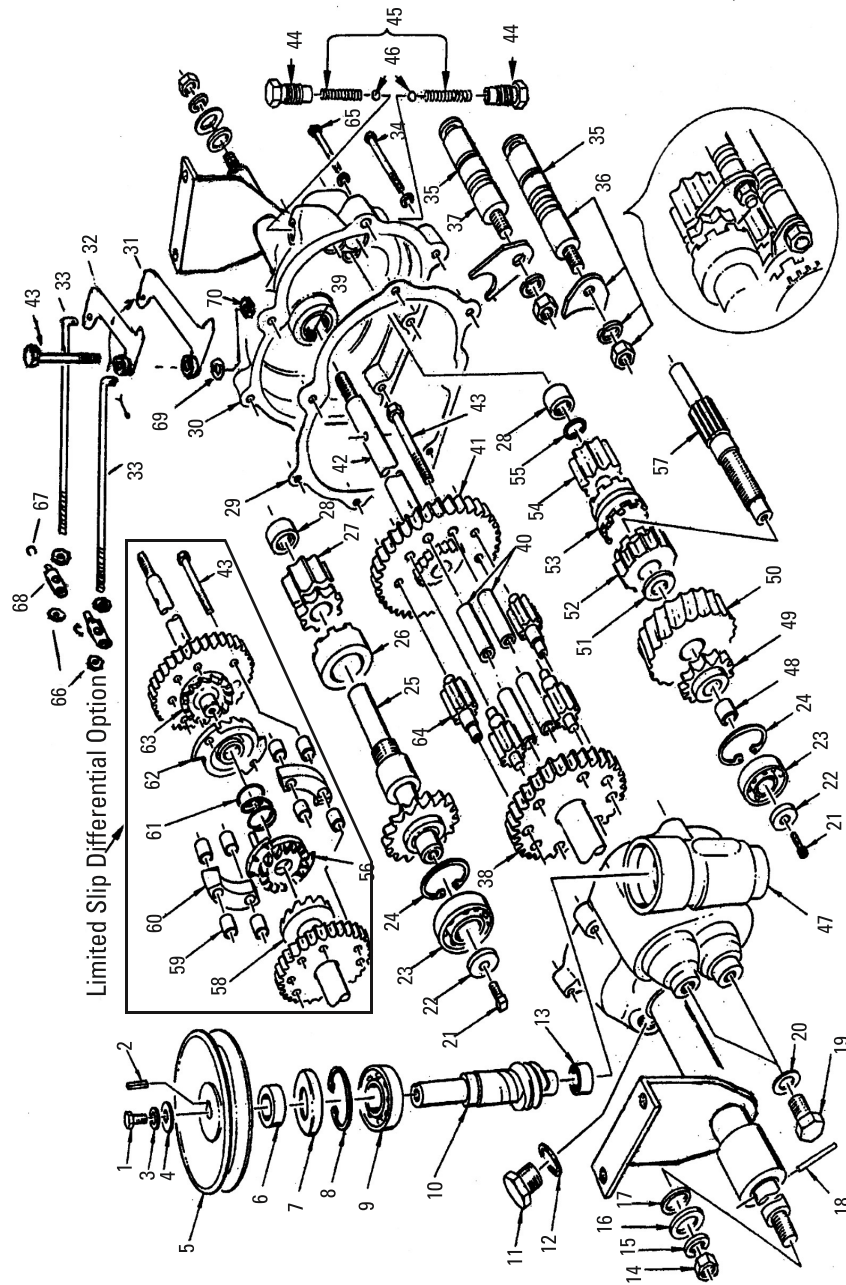
## HANDLE BARS & CONTROLS



| Item | New No. | Part Description       | Item | New No. | Part Description    |
|------|---------|------------------------|------|---------|---------------------|
| 1    | 3334    | Handle Bar assembly    | 12   | 1148    | Throttle Knob       |
| 2    | 1586    | Handle Grip            | 13   | 3423    | Throttle Control    |
| 3    | 3322    | Gear lever (Hand)      | 14   | 1154    | Cable Clamp & Screw |
| 4    | 3393    | Gear lever cage        | 15   | 3417    | Throttle Cable      |
| 5    | 1334    | Bolt                   | 16   | 3377    | Vertical height rod |
| 6    | 3396    | Gear Selector plate LH | 17   | 1495    | Special bolt        |
| 7    | 3310    | Gear selector Plate RH | 18   | 3301    | Height lever        |
| 8    | 3021    | Spring                 | 19   | 3332    | Spring              |
| 9    | 3398    | Plastic Cup            | 20   | 1618    | Knob                |
| 10   | 3318    | Vertical Rod           | 21   | 1587    | Clutch lever        |
| 11   | 1184    | "R" Clip               | 22   | 1098    | Bolt, M8 x 30       |
|      |         |                        | 23   | 1590    | Vertical Clutch Rod |



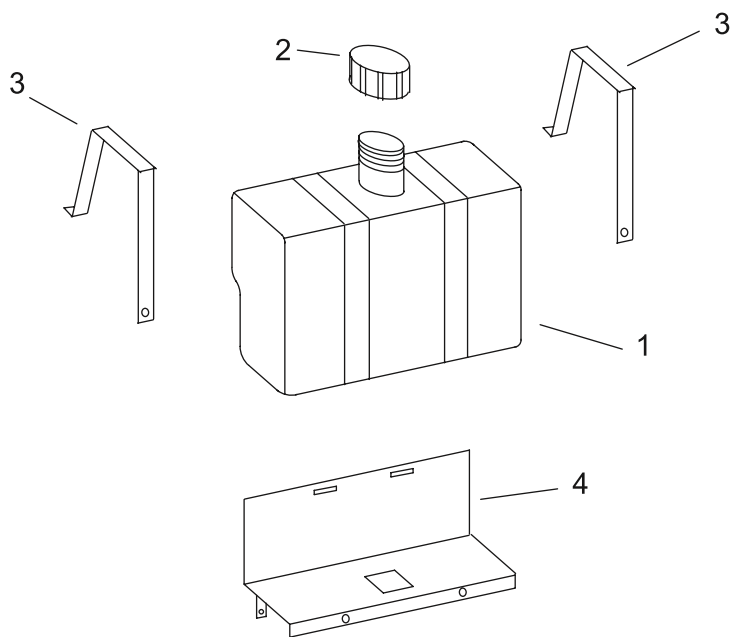
# GEARBOX ASSEMBLY



## GEARBOX ASSEMBLY

| Item No. | Part No. | Part Description        | Qty      | Item No.  | Part No.    | Part Description               | Qty      |
|----------|----------|-------------------------|----------|-----------|-------------|--------------------------------|----------|
| 1        | 1100     | Screw, pulley           | 1        | <b>37</b> | <b>1695</b> | <b>Selector tappet reverse</b> | <b>1</b> |
| 2        | 1640     | Key                     | 1        | 38        | 1739        | High crown gear                | 1        |
| 3        | 1641     | Spring washer           | 1        | 39        | 1699        | Bearing, needle, axle          | 4        |
| 4        | 1642     | Washer                  | 1        | 40        | 1700        | Spacer, diff.                  | 4        |
| 5        | 1643     | Pulley                  | 1        | 41        | 1701        | Low crown gear                 | 1        |
| 6        | 1650     | Spacer                  | 1        | 42        | 1702        | Axle                           | 2        |
| 7        | 1651     | Seal 25x40x7            | 1        | 43        | 1704        | Bolt, diff                     | 5        |
| 8        | 1652     | Circlip 40mm            | 1        | 44        | 1705        | Spring holder                  | 2        |
| 9        | 1484     | Bearing 6203            | 1        | 45        | 1706        | Spring                         | 2        |
| 10       | 1653     | Input spindle           | 1        | 46        | 1707        | Ball                           | 2        |
| 11       | 1654     | Plug Filler             | 1        | 47        | 3336        | Housing R.H.                   | 1        |
| 12       | 1655     | Fibre washer 3/4"       | 1        | 48        | 1714        | Sleeve, bearing                | 1        |
| 13       | 1656     | Bearing roller B128     | 1        | 49        | 1715        | Reverse gear 13 teeth          | 1        |
| 14       | 1657     | Nut, axle 5/8" UNF      | 2        | 50        | 1716        | Bronze worm gear               | 1        |
| 15       | 1658     | Spring washer           | 2        | 51        | 1717        | Washer, hardened               | 1        |
| 16       | 1315     | Flat washer             | 2        | 52        | 1740        | High gear pinion & clutch      | 1        |
| 17       | 1659     | Seal, axle 7/8"         | 2        | 53        | 1719        | Double clutch                  | 1        |
| 18       | 1501     | Pin, axle drive         | 2        | 54        | 1720        | Pinion, low gear               | 1        |
| 19       | 1661     | Plug, 1/2" BSF          | 2        | 55        | 1721        | Circlip, 14mm                  | 1        |
| 20       | 1662     | Fibre washer 1/2"       | 2        | 56        | 1722        | Sliding clutch with pins L.H.  | 1        |
| 21       | 1663     | Screw                   | 2        | 57        | 1723        | Forward spindle                | 1        |
| 22       | 1637     | Washer                  | 2        | 58        | 1724        | Axle & clutch L.H. LSD         | 1        |
| 23       | 1664     | Bearing 6202            | 2        | 59        | 1725        | Spacer                         | 8        |
| 24       | 1665     | Circlip 35mm            | 2        | 60        | 1726        | Clutch spreader bar            | 2        |
| 25       | 1666     | Reverse spindle & gear  | 1        | 61        | 1727        | Spring                         | 1        |
| 26       | 1669     | Reverse clutch          | 1        | 62        | 1728        | Sliding clutch R.H.            | 1        |
| 27       | 1670     | Reverse sliding gear    | 1        | 63        | 1729        | Axle & clutch R.H. LSD         | 4        |
| 28       | 1671     | Bearing, roller B98     | 2        | 64        | 1730        | Diff spider gear               | 4        |
| 29       | 1672     | Gasket                  | 1        | 65        | 1639        | Bolt, 1/4"x1-1/4"              | 1        |
| 30       | 3335     | Housing L.H.            | 1        | 66        | 1072        | Nut M8                         | 4        |
| 31       | 3422     | G/box lower lever       | 1        | 67        | 5028        | ""E"" clip"                    | 2        |
| 32       | 3421     | G/box upper lever       | <b>1</b> | <b>68</b> | <b>3172</b> | <b>Stepped bush</b>            | <b>2</b> |
| 33       | 3319     | Gear selector rod Hor.  | <b>2</b> | --        | <b>3425</b> | <b>Gearbox complete</b>        | <b>1</b> |
| 34       | 1689     | Bolt, housing, 1/4"x2"  | <b>6</b> | --        | <b>3430</b> | <b>Gearbox LSD</b>             | <b>1</b> |
| 35       | 1690     | O-ring                  | <b>2</b> |           |             |                                |          |
| 36       | 1691     | Selector tappet Forward | <b>1</b> |           |             |                                |          |

## FUEL TANK / SUNDRY PARTS



| Item No. | Part No. | Part Description | Item No. | Part No. | Part Description |
|----------|----------|------------------|----------|----------|------------------|
| 1        | 1746     | Tank, 6.5lt      | -        | 3343     | Decal set        |
| 2        | 1329     | Cap, fuel tank   |          |          |                  |
| 3        | 1747     | Strap            |          |          |                  |
| 4        | 1748     | Bracket, tank    |          |          |                  |

## WARRANTY POLICY

- DEUTSCHER MOWERS PTY. LTD. will repair or replace, free of charge, any mower or part of a mower that is defective in materials or workmanship (or both) for a period of 24 months from the date of purchase. If parts or units are replaced, the replacement period will be no longer than 3 months.
- This does not cover normal wear, abuse or servicing procedures not in accordance with the user's manual. Parts such as blades, blade bolts, tyres and v-belts, that can be subject to use beyond their normal intended working limits, are also excluded.
- This warranty is void if parts other than genuine parts have been used or if repairs or modifications have been made without the manufactures written authority.
- This warranty does not obligate the manufacturer, agents or dealers to cover transport costs incurred in the repair or replacement of any defective part. It does not obligate the manufacturer, agents or dealers to cover any other costs associated with making the warranty claim. (eg telephone calls )
- The engine on this mower is covered by the engine manufacturer's warranty supplied with the mower. For your nearest engine dealer,  
Phone: Honda M.P.E.: 1800 241173

To claim a warranty the owner must return the mower (at the owners expense) to an authorized dealer , then give the authorized dealer a clear explanation of the defect. A list of authorized dealers can be found on the Deutscher Mowers website or the location of the nearest authorized dealer can be determined by telephoning the telephone number listed below.

Our goods come with guarantees that cannot be excluded under Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The benefits to the owner given by this warranty are in addition to other rights and remedies of the owner under a law in relation to goods or services to which the warranty relates.

### FOR YOUR RECORD

Model: **HE660**

Serial Number: ..... Date of Purchase: .....

Mower Purchased From: .....

.....

.....

.....

**Remember: Proof of purchase is the responsibility of the owner and is necessary prior to warranty work being undertaken. Only warranty work performed by an authorized dealer using genuine spare parts will be eligible for payment, and claims may not be accepted if abuse or other damage has occurred that is not considered as normal wear and tear.**

Manufactured in Australia by: **DEUTSCHER MOWERS PTY LTD**, 731Creswick Rd, Ballarat, 3350

Telephone : 03 5339 5708 Fax: 03 5339 3189 [www.deutschermowers.com.au](http://www.deutschermowers.com.au)