

CROMMELINS™ DRIVE UNITS

OPERATION & INSTRUCTION MANUAL

Thank you for your selection of a CROMMELINS™ Drive Unit.
This Operation Manual explains its use, installation, checking and maintenance.
We highly recommend that you retain this manual for ready reference regarding
proper handling of the CROMMELINS™ Drive Unit.



Spare Parts & Service

Phone: 1300 554 524

Freecall Fax: 1800 636 281

spareparts@crommelins.com.au

www.crommelins.com.au



Thank you very much for purchasing a CROMMELINS™ DRIVE UNIT.
This manual covers operation and maintenance of the CROMMELINS™ DRIVE UNIT.
This CROMMELINS™ DRIVE UNIT can be used in the agricultural, mining, construction, hire industries and general use.

Please take a moment to familiarise yourself with the proper operation and maintenance procedures in order to maximise the safe and efficient use of this product.

Keep this owner’s manual at hand, so that you can refer to it at anytime.
Due to constant efforts to improve our products, certain procedures and specifications are subject to change without notice.

When ordering spare parts please have handy your products model number and serial number. Record these numbers in the boxes below for future reference.

MODEL NO.

| | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

SERIAL NO.

| | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

CONTENTS

Introduction & Contents _____ 2
Safety & Components Diagram _____ 3
Connecting Drive Pump or Vibrator Shaft _____ 4
Maintenance, Transportation & Storage _____ 5
Specification Chart _____ 6
Trouble Shooting Guide _____ 7
Drive Unit Parts List _____ 8

SAFETY

This manual contains important information on how to use the following drive unit models DU53, DU53D, DU53DS41, DU53BF, DU53EX17 and DU73 properly and safely. Please read through this manual before you attempt to operate the machine.

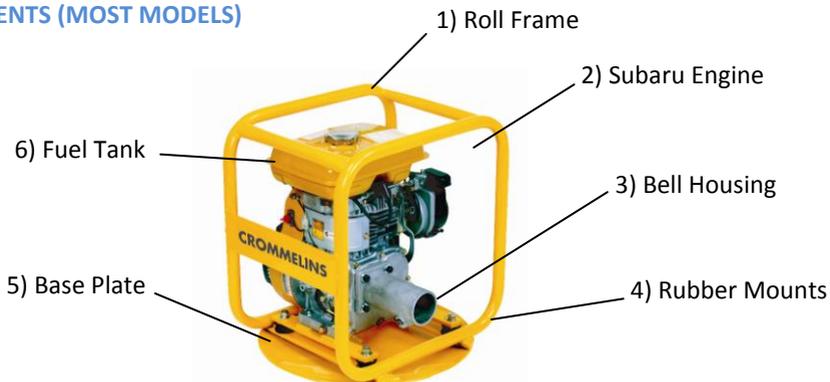
Ensure safe operation, this drive unit is designed to give safe and dependable service if operated according to the instructions.

- Always make a pre-operation inspection before starting the engine. (For more information read engine operational manual)
- Do not place flammable objects near the unit.
- Children and pets must keep away from the area of operation at all times.
- Never allow anyone to operate the unit without proper instructions.
- Must know how to stop the engine quickly and understand all the operation of controls.
- Be careful with the operating place and ventilation, avoid operating the machine in a closed room, tunnel, or other badly ventilated places, since its exhaust contains deadly poisonous carbon monoxide. If the machine is unavoidably operated in such a place, discharge the exhaust outside the room by a suitable means.
- Mufflers and other hot parts are dangerous. Do not touch them with hands or any other body parts.
- Observe the following cautions when transporting. Clamp fuel tank cap securely, and close fuel strainer cock tightly during transportation. Drain gasoline from fuel tank before transporting over a long distance or on rough roads.
- Stop engine without fail before replenishing fuel tank. Never replenish gasoline while the engine is running or remains hot otherwise spilled or evaporated fuel is liable to catch fire from the engine spark or muffler heat. Wipe off spilled fuel before starting engine.

To prevent injury wear the following protective items: Gloves, hard hat, work boots, ear plugs, safety glasses and any other protective item required by job conditions.



COMPONENTS (MOST MODELS)



CONNECTING DRIVE PUMP OR VIBRATOR SHAFT

- Ensure that the connecting end is securely engaged and properly latched into the drive unit.

BEFORE STARTING

- Check the engine in accordance with operation manual for engine.
- Check fuel and engine oil.
- Check bolts and screws for tightness and make sure all bolts and screws are securely tightened. Loose bolts and screws may cause damage to the unit.

STARTING

- Open fuel tap.
- Set the speed control lever to the starting position.
- Close the choke lever of the carburettor (leave the choke lever half-open position during warming up the engine – petrol engine only).
- Pull the recoil starter strongly.
- After the engine has started open the choke lever fully and warm up the engine for 2-3 minutes in the low speed position.

OPERATING

- Take care not to over-speed the flexible shaft or damage could result.
- Engine speed is set to 3100RPM which is correct for vibrator shafts. Operating in excess of this speed may cause damage to vibrator shaft.

STOPPING THE MACHINE

- Operate the machine 1-2 minutes with the throttle lever setting back to the low speed position.
- Turn the ignition switch to “OFF” for petrol unit. Press STOP lever for diesel unit.
- Close the fuel cock.
- After the engine has cooled, it is highly recommended to wipe off the machine and inspect oil seals for any unusual leakage from the engine.
- It is also recommended that a cover be placed over the machine once cooled, to provide protection to the machine as well as the engine.

MAINTENANCE

When assembling, lubricating, or adjusting any part of the machine, make sure to stop the engine and disconnect the spark plug wire. Service the engine according to the engine manufacturer's specifications. Refer to the engine operation and maintenance manual.

Maintenance: Every 8 hours or daily

- Check for loose bolts and nuts, retighten if necessary.
- Check and clean the air filter element, re-lube the element according to engine manufacturer's recommendations. If operating conditions are usually dusty and severe, cleaning of filter elements should be done more frequently.
- Check oil level in crankcase and replenish as necessary.
Recommended engine oil is SAE-30.

Maintenance: Every 450 – 500 hours

FUEL & LUBRICANT

| Engine Model | Fuel Tank Capacity | Engine Oil Per Litre | Engine Oil Type | Fuel Type | Spark Plug |
|--------------|--------------------|----------------------|-----------------|-----------|------------|
| EY20D | 3.8L | 0.6L | SAE30 | Petrol | NGK BR6HS |
| DY272D | 3.2L | 0.9L | SAE30 | Diesel | - |
| DY272DS | 3.2L | 0.9L | SAE30 | Diesel | - |
| EX17 | 3.6L | 0.6L | SAE30 | Petrol | NGK BR6HS |
| EH25DU | 6.0L | 1.0L | SAE30 | Petrol | NGK BR6HS |

TRANSPORTATION

- Before transportation, confirm that the fuel shut-off valve is closed.
- Be sure to let the engine cool off before transportation.
- When loading and unloading the machine to and from the vehicle, lift the machine with extreme care. The machine is heavy, and must not be lifted single-handedly. Lift the machine by two people holding each side of roll frame.
- Tie the machine firmly to the vehicle during the transportation.

STORAGE

- Make sure that the engine is completely cooled off before storage.
- Clean up oil and dust accumulation on rubber parts.
- Remove flexible drive pump or vibrator shaft before storage.
- Cover the machine and store it in a dry place.
- For long-term storage of petrol unit, remove fuel from the fuel tank. Also remove fuel remained in the fuel line and chamber of the carburettor. To drain fuel from the chamber of the carburettor, remove the drain plug provided at the chamber, and remove fuel.

DRIVE UNITS SPECIFICATION CHART

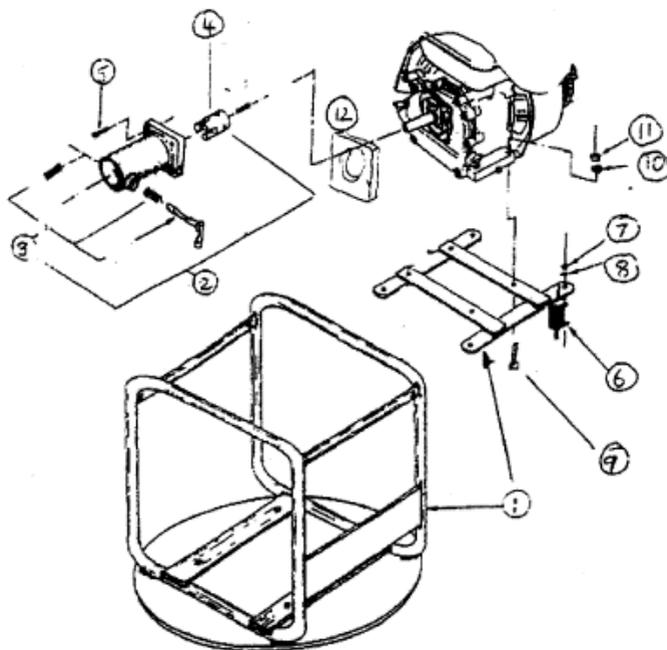
| MODEL | DU53 | DU53D | DU53DS41 |
|-------------------------|----------------|----------------|----------------|
| Weight (kg) | 32.0 | 49.0 | 61.0 |
| Engine Make | Subaru | Subaru | Subaru |
| Engine | 5.0hp EY20 | 5.4hp DY27 | 8.5hp DY41 |
| Engine Features | Recoil Start | Recoil Start | Electric Start |
| Fuel Type | Petrol | Diesel | Diesel |
| Fuel Tank Capacity | 3.8L | 3.2L | 4.5L |
| Noise Level db@7m | 69.0 | 74.0 | 78.0 |
| Manufacturers Warranty | 2 yrs | 2 yrs | 2 yrs |
| Engine Warranty | 3 yrs | 3 yrs | 3 yrs |
| Drives Vibrators (upto) | 65mm | 65mm | 75mm |
| Drives Pumps (upto) | 50mm | 50mm | 75mm |
| Roll Frame | Heavy Duty | Heavy Duty | Heavy Duty |
| Sub Frame | Rubber Mounted | Rubber Mounted | Rubber Mounted |

| MODEL | DU53BF | DU53EX17 | DU73 |
|-------------------------|----------------|----------------|----------------|
| Weight (kg) | 31.0 | 32.0 | 38.0 |
| Engine Make | Subaru | Subaru | Subaru |
| Engine | 5.0hp EY20 | 6.0hp EX17 | 8.5hp EH25 |
| Engine Features | Recoil Start | Recoil Start | Recoil Start |
| Fuel Type | Petrol | Petrol | Petrol |
| Fuel Tank Capacity | 3.8L | 3.8L | 6.0L |
| Noise Level db@7m | 69.0 | 66.0 | 70.0 |
| Manufacturers Warranty | 2 yrs | 2 yrs | 2 yrs |
| Engine Warranty | 3 yrs | 3 yrs | 3 yrs |
| Drives Vibrators (upto) | 65mm | 65mm | 65mm |
| Drives Pumps (upto) | 50mm | 50mm | 75mm |
| Roll Frame | Heavy Duty | Heavy Duty | Heavy Duty |
| Sub Frame | Rubber Mounted | Rubber Mounted | Rubber Mounted |

TROUBLE SHOOTING GUIDE

| PROBLEM | CAUSE | SOLUTION |
|---|--|--|
| Engine won't start | <ol style="list-style-type: none"> 1. Engine switch in OFF position 2. Throttle lever on/off switch in OFF position 3. No fuel in engine 4. Worn, fouled or dirty spark plug 5. Pressure build up in pump | <ol style="list-style-type: none"> 1. Turn engine switch to ON position 2. Turn throttle lever to ON position 3. Fill fuel tank or turn on fuel supply 4. Replace with factory recommended spark plug 5. Squeeze trigger on spray wand to release pressure in hose line |
| Units with Oil Alert System | <ol style="list-style-type: none"> 1. Engine not level or engine oil level too low | <ol style="list-style-type: none"> 1. Place engine on level surface or fill crankcase with oil (refer to engine manufacturers instruction manual) |
| Engine with low power | <ol style="list-style-type: none"> 1. Throttle control lever not set to full throttle position 2. Partially clogged gun nozzle | <ol style="list-style-type: none"> 1. Set throttle control lever to full position 2. Clean nozzle of any blockage |
| Engine runs well at no load but 'bogs' down under full load | <ol style="list-style-type: none"> 1. Engine speed too low | <ol style="list-style-type: none"> 1. Contact your pressure cleaner dealer |
| Engine will not start: or starts and runs rough | <ol style="list-style-type: none"> 1. Low oil level 2. Dirty air filter 3. Out of petrol 4. Stale petrol 5. Spark plug wire not connected to spark plug | <ol style="list-style-type: none"> 1. Fill crankcase to proper level 2. Clean or replace air cleaner 3. Fill fuel tank 4. Drain fuel tank, fill with fresh fuel 5. Connect wire to spark plug |

DU53 DRIVE UNIT



| REF | PART NO. | DESC | QTY |
|-----------------------|------------|-----------------------------------|-----|
| 1 | DU530100 | BASE & H-PLATE SET | 1 |
| 2 | DU530200 | BELL HOUSING AND DRIVE DOG SE | 1 |
| 3 | > DU530210 | LATCH PIN ASSEMBLY | 1 |
| 4 | > DU530320 | 3 DOG COUPLING 20MM | 1 |
| 5 | 8X30SH | SCREWS 8 X30 | 4 |
| 6 | 4504000500 | RUBBER MOUNTS | 4 |
| 7 | 3049 | HEX ZP NUT 10 | 8 |
| 8 | 3714 | WASHER S10 | 8 |
| 9 | 8X50 | BOLTS | 4 |
| 10 | 14408 | WASHER 8S | 8 |
| 11 | 3048 | NUT 8 | 4 |
| OPTIONAL PARTS | | | |
| 4 | > DU530310 | 3 DOG COUPLING 1 " | 10 |
| 4 | > DU530319 | 3 DOG COUPLING 19mm | 10 |
| 4 | > DU530325 | 3 DOG COUPLING 25MM | 10 |
| 12 | > DU53W | BELL HOUSING SPACER 8MM (DIESELS) | 10 |