# MGT AUSTRALIA PTY LTD

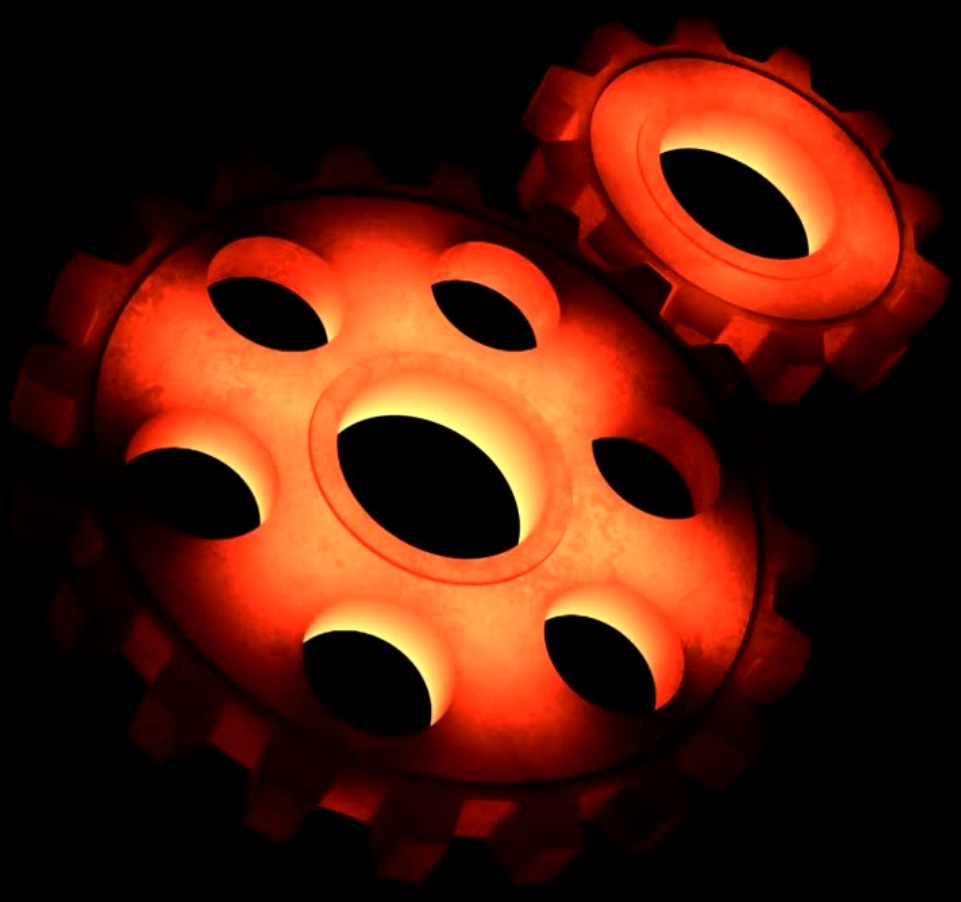
MGT
Magnetic Solar Water Pumps

Magnetic Gears
&
Couplings

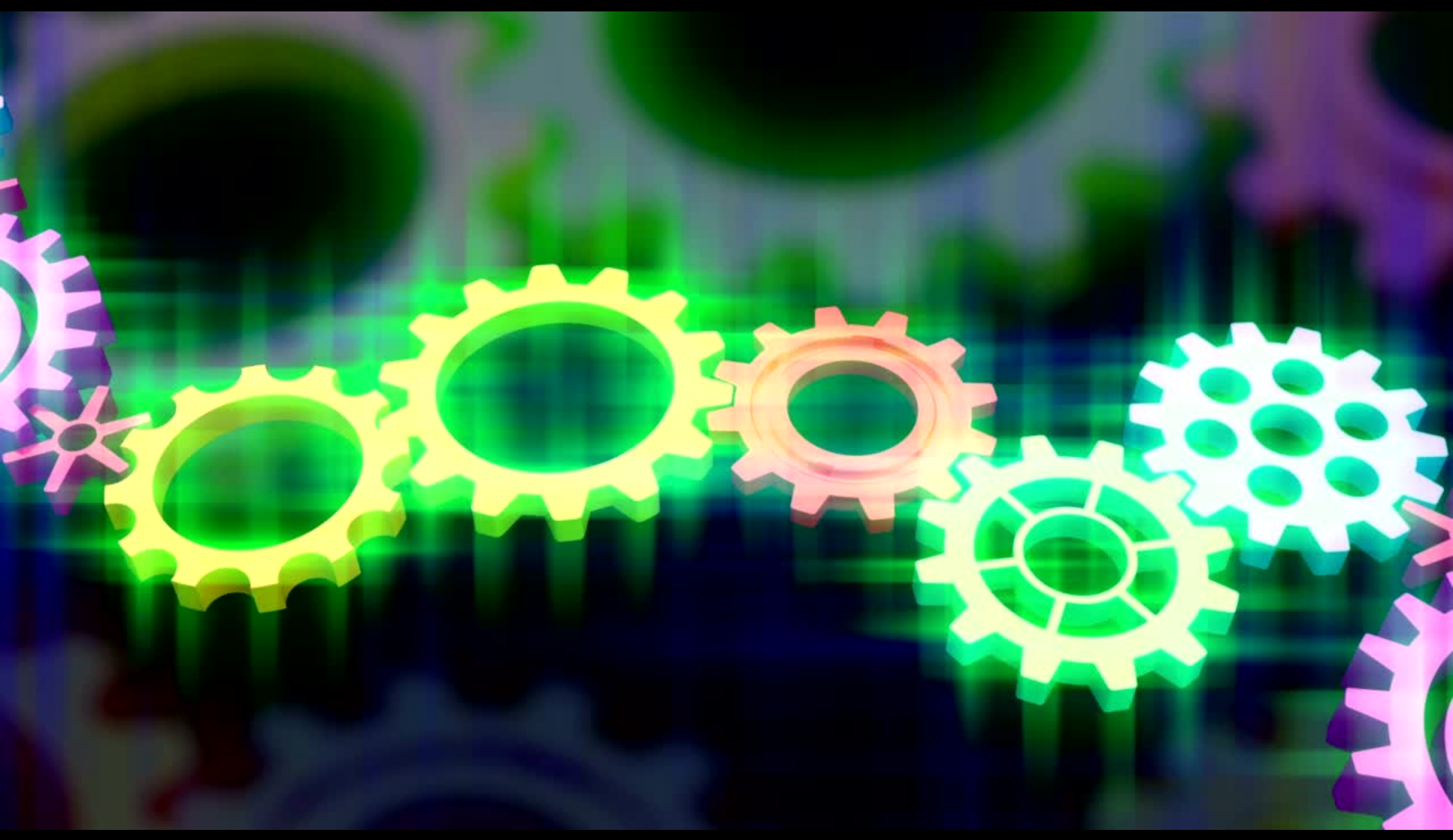
Driving The Future

www.mgt.com.au

# Frictionless Gearing & Couplings



No touching gear teeth
No lubrication needed
and it works misalligned




Products ready to sell - tested and proven


Retail - Retro fit & DIY

MGT

Magnetic Solar Water Pumps

# MGT - Mono Pump Conversion



33.3% less Solar panels needed

The same Mono Pump system needed 4 less Solar Panels and produced 50 KPA more presure

More Water - 4 Less Cost

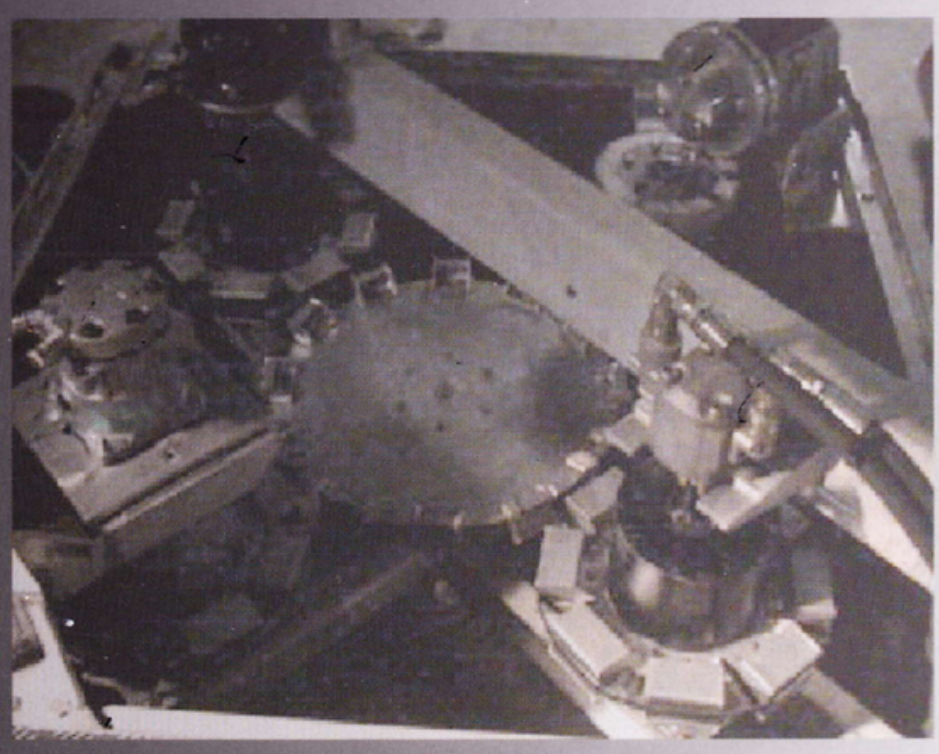
MGT - Driving The Future



SOUTHERN
CROSS

# Magnetic Gearing & Coupling's

## Frictionless Power Transmission

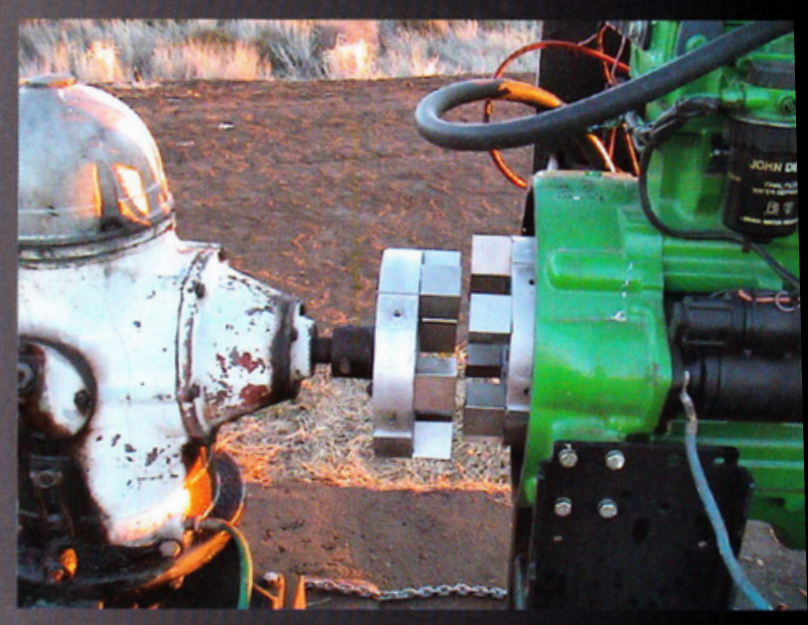


## Light Years Ahead

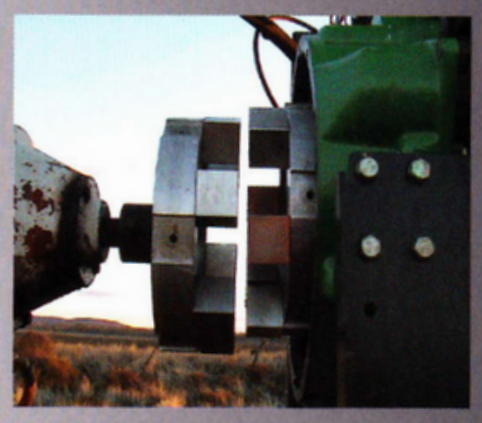
# Magnetic Gearing & Coupli

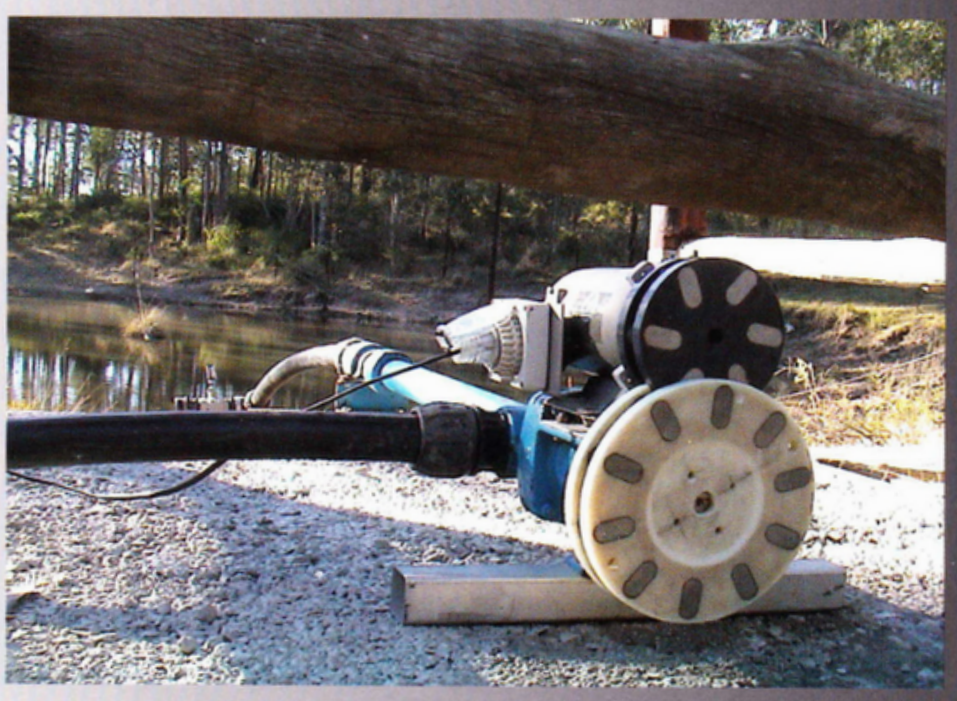
MGT are offering to experienced individuals and companies involved in Power Transmission, the opportunity to purchase a license to commercialise this technology in their industry / region / country.

100 hp John Deere Diesel



Allows for misalignment
No Mechanical Connection

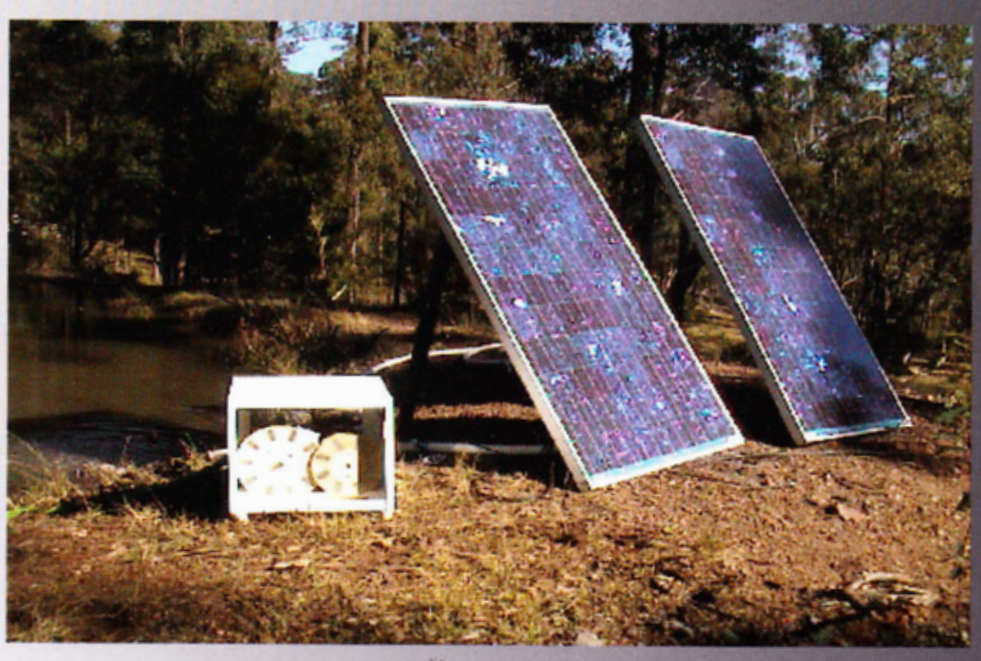




## 22.7% more e

an

## Solar Water Pumps - where efficiencies are very importan

Portable Solar Water Pump

20 litres a second on solar
The world's best solar flow rate

# g's have 1,000's of Applications

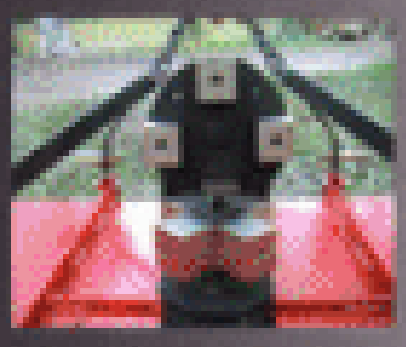
## An Alternative Power Transmission with 3 Unique Advantages

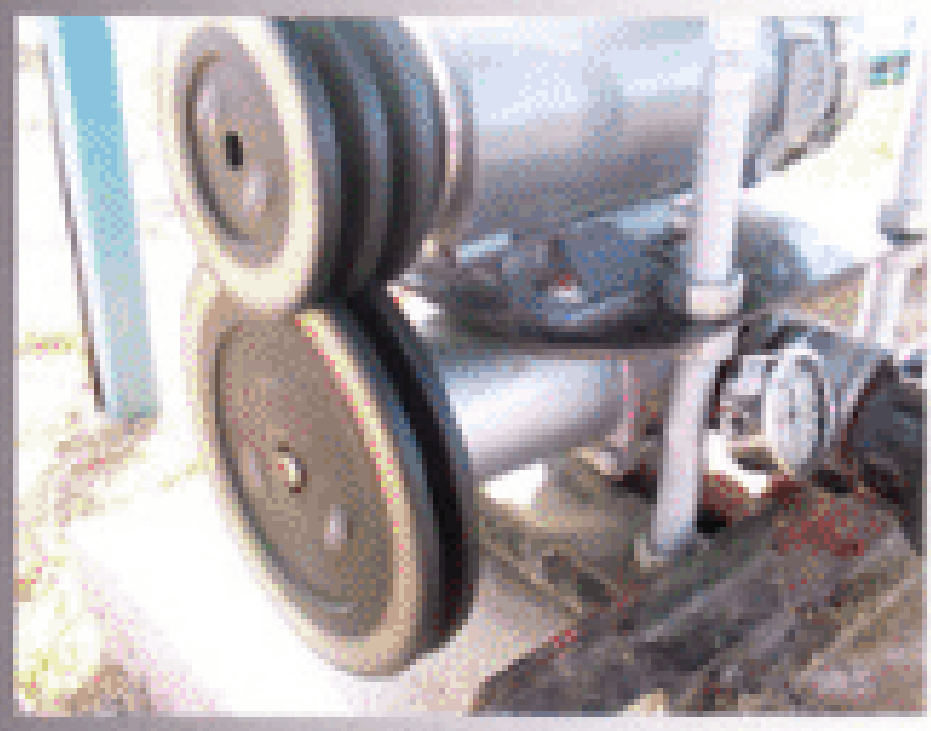
1 / No friction = more efficient = less fuel / Lower capital & running costs

2 / Can operate aligned by the human eye / No gauges - save time

3 / A Slip Clutch if things do overload to protect machinery, life & limbs

NO Heat is Generated in the transfer of energy from the driver to the driven





cient than a V belt

st welcome

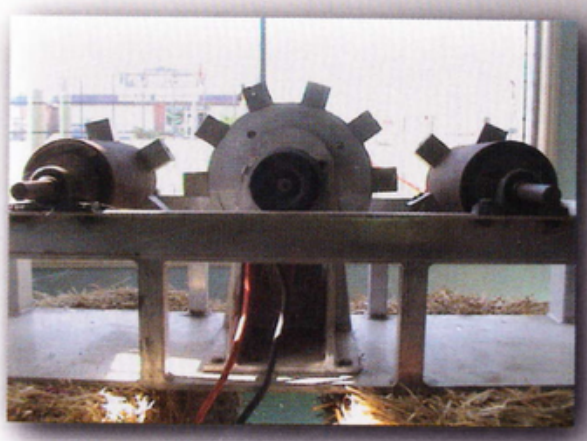
Slasher with right angle gear box

Drive anything that rotates

24volt DC with No Belts

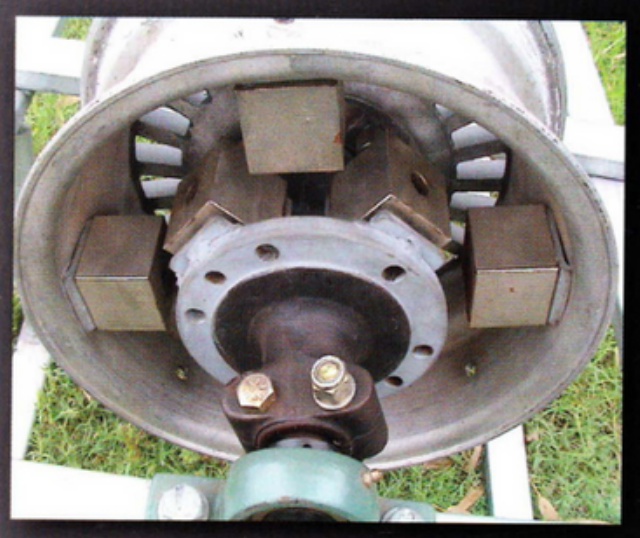
Machinery protection
with built in Slip Clutch

A grain auger with safety slip to protect
human life and limbs if caught in auger screw

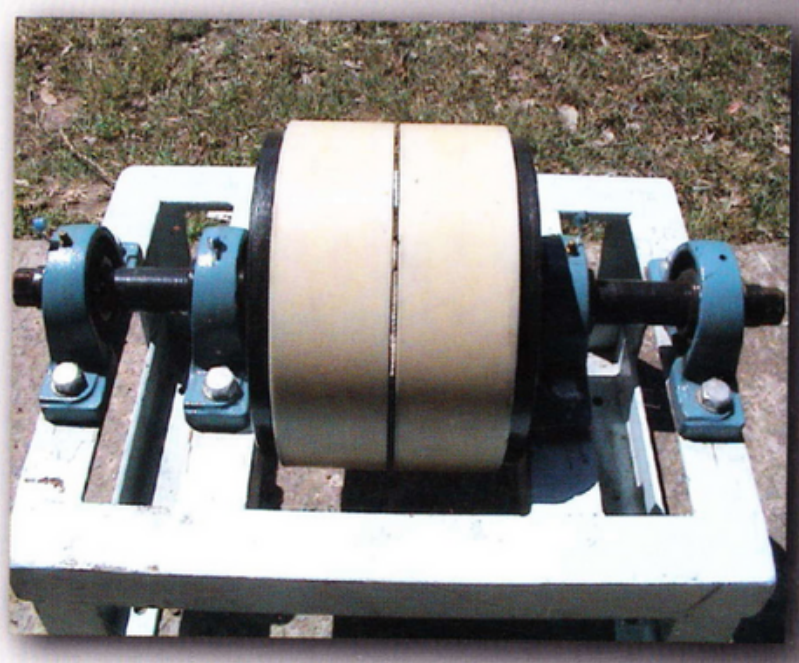


Industrial

Mining



Agricultural



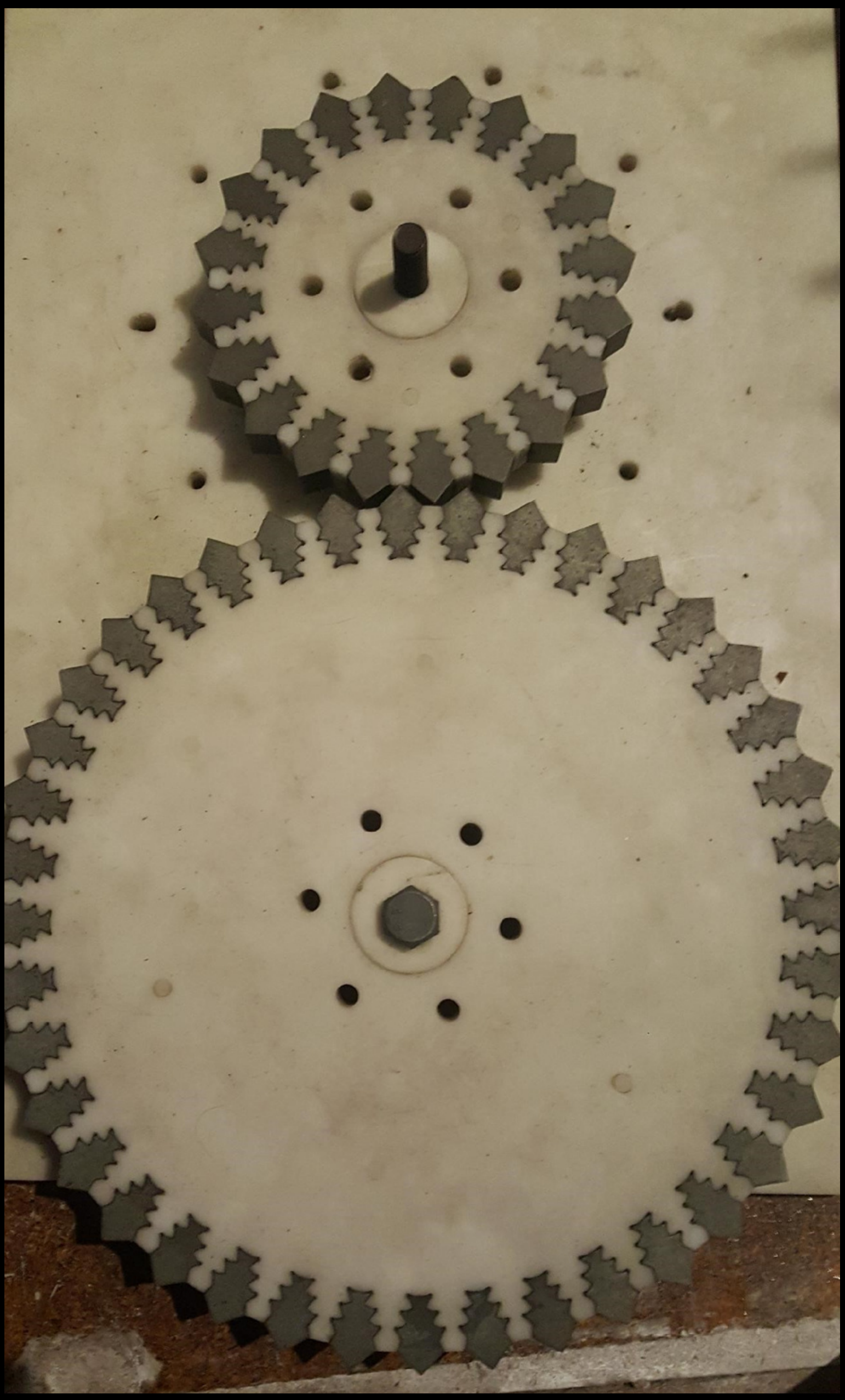
Automotive

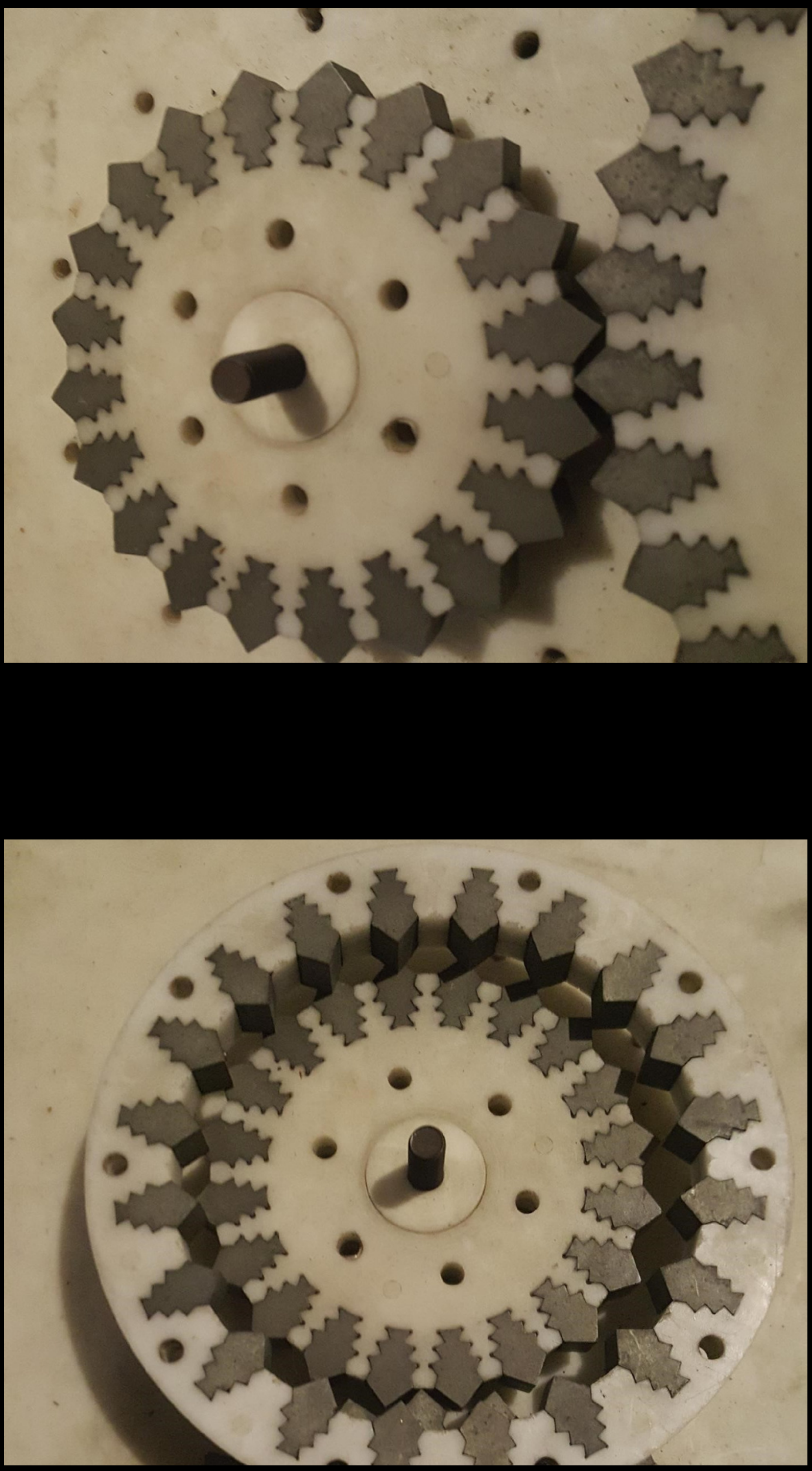
Marine

Aviation

# Power Transmission Technology

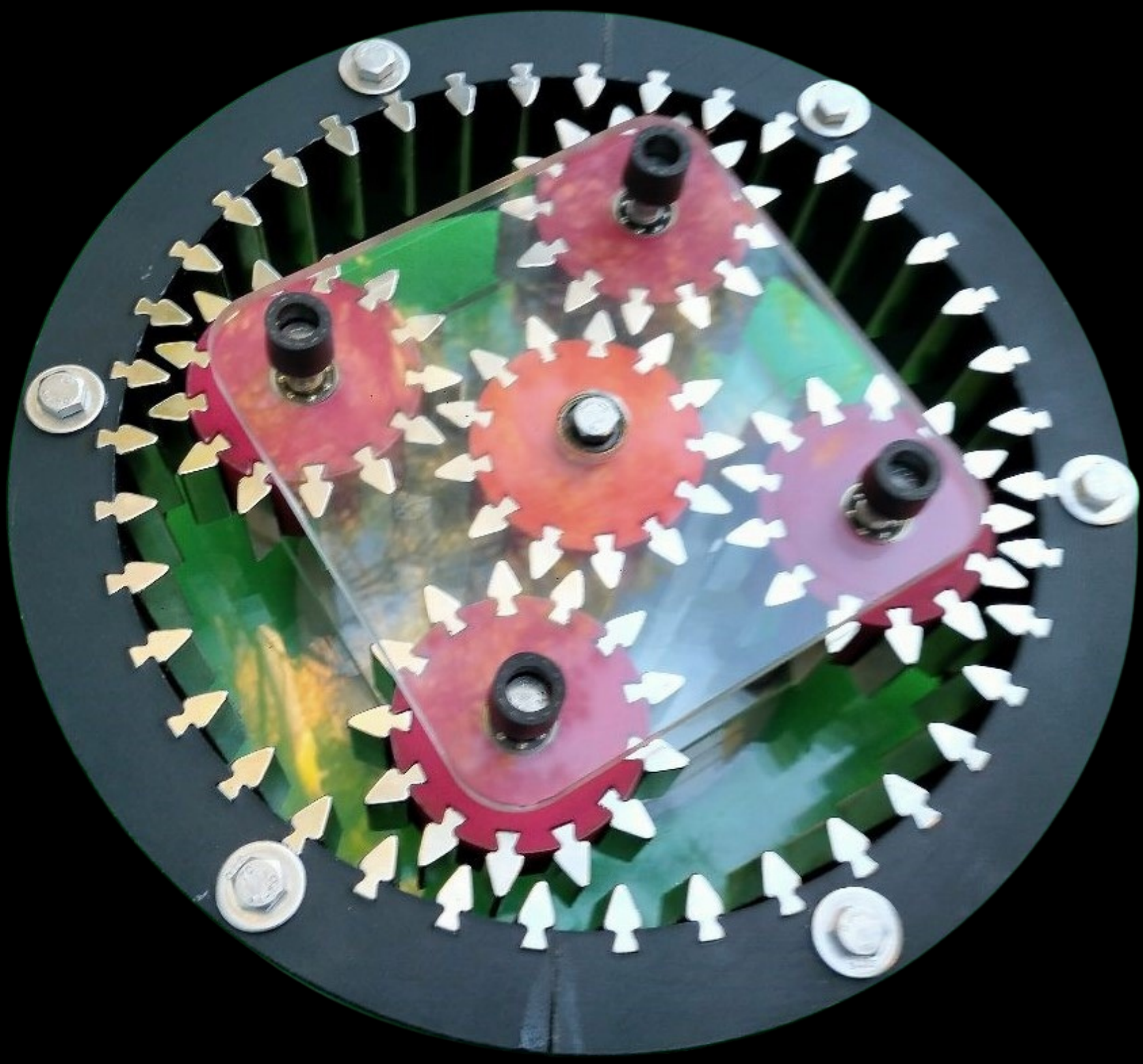
# Meshed Gears & Couplings





Can even works as a mis alligned coupling

Spun to 17,000 rpm and held together



Frictionless Magnetic Planetary Gearbox

Raptor Superchargers
Po Box 5135
Mackay MC Qld 4741
ABN: 28629812346

28/05/2013

Dear Andrew

On the 27/5/2013 Raptor superchargers speed tested the input MGT gear assembly to to 15000rpm (test requirement) and then further to 17000rpm.

We can confirm that in this instance with the provided part that complete integrity of the magnets and their mounting hub to 100% meet our design specification.

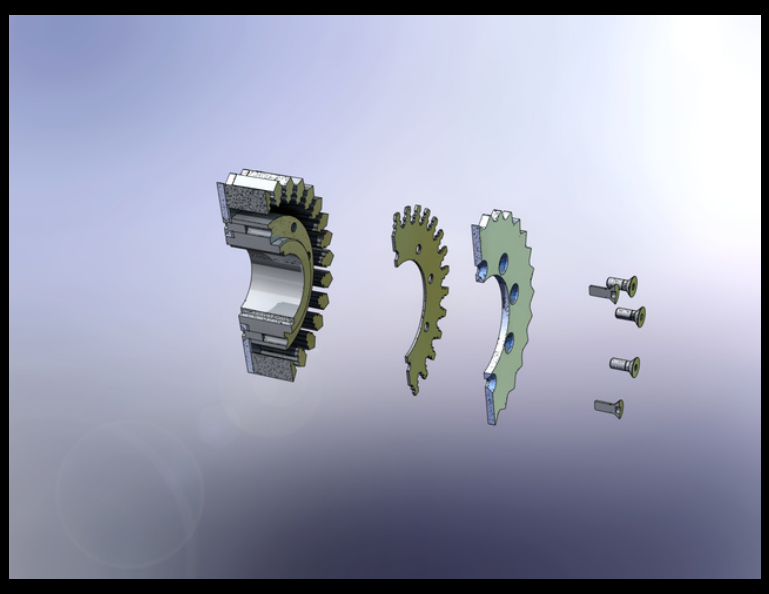
The image below shows clearly that the item was brought to normal input shaft speeds with standard Raptor step up ratios, engine was operated to its maximum rpm of 5900rpm. The engine being an ECOTEC 3.8 liter in Holden VS utility.

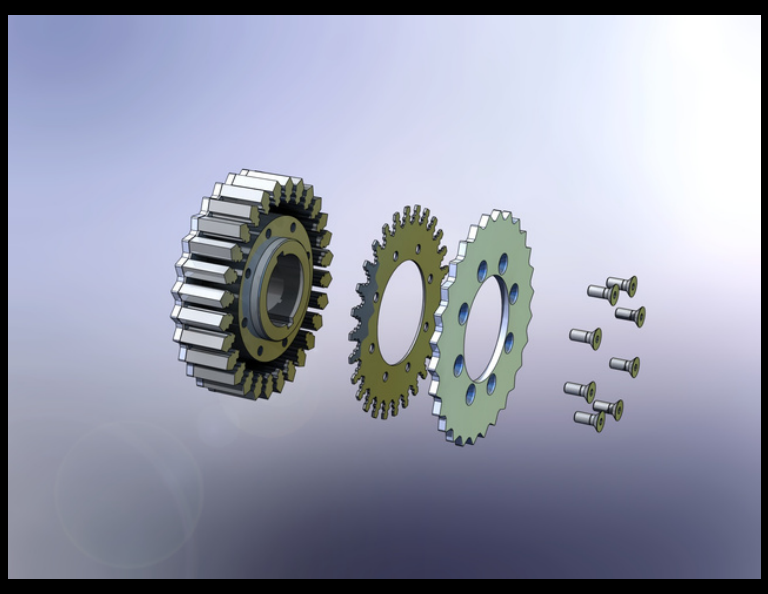

The next test is assembly of complete unit and running to operational speed. This test will happen after July 15.

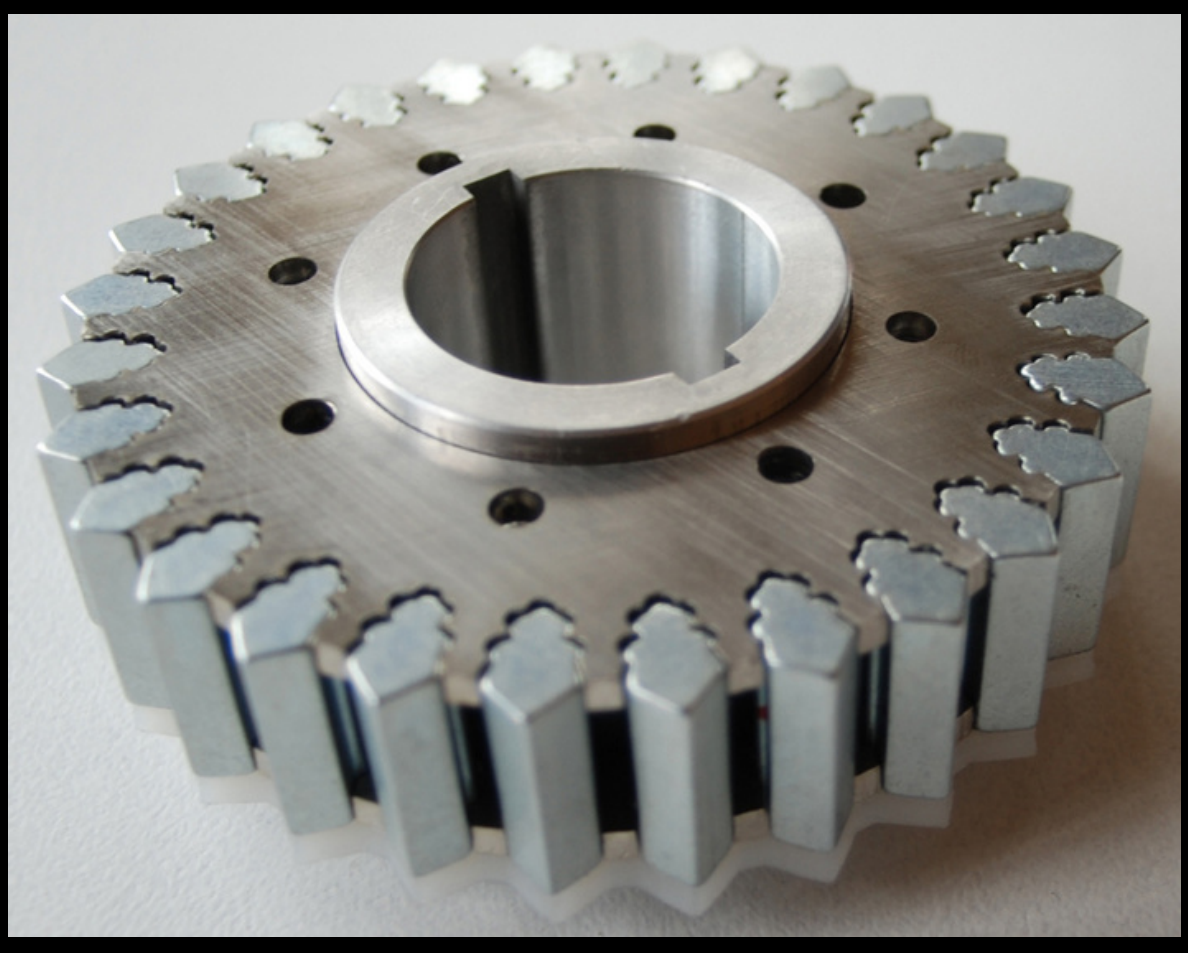
Regards

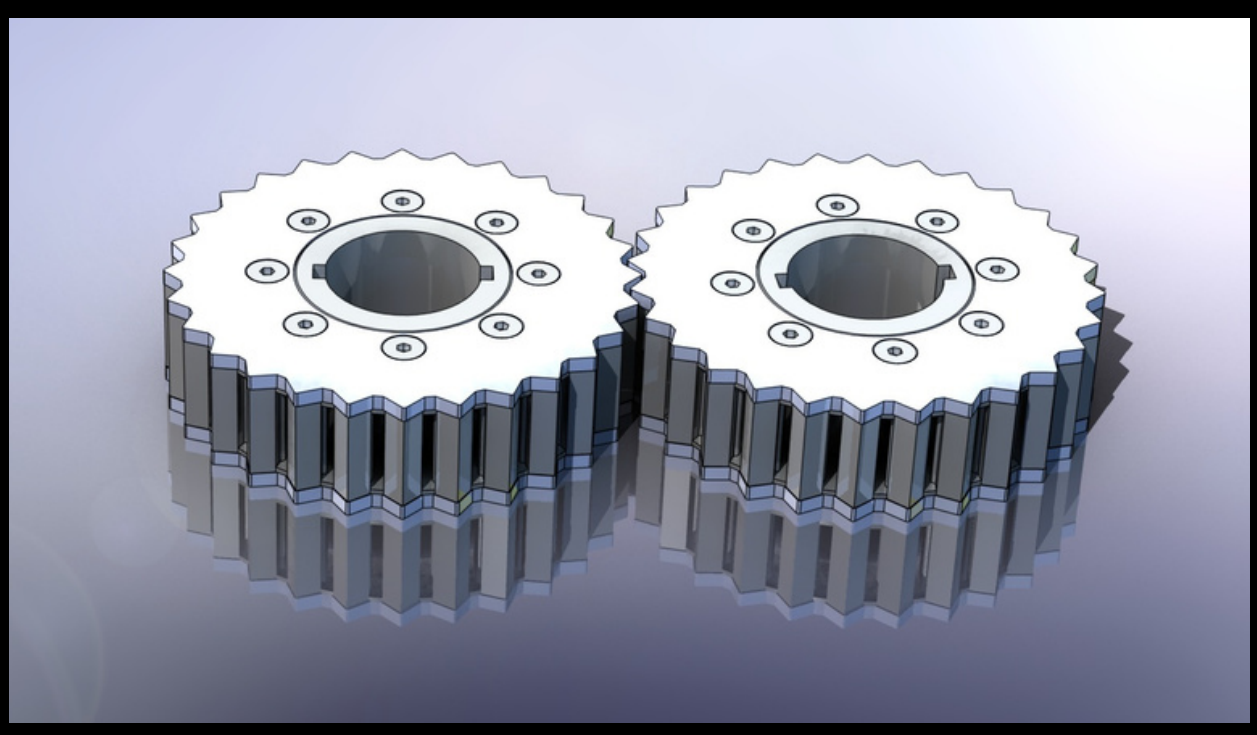
T N STAIER

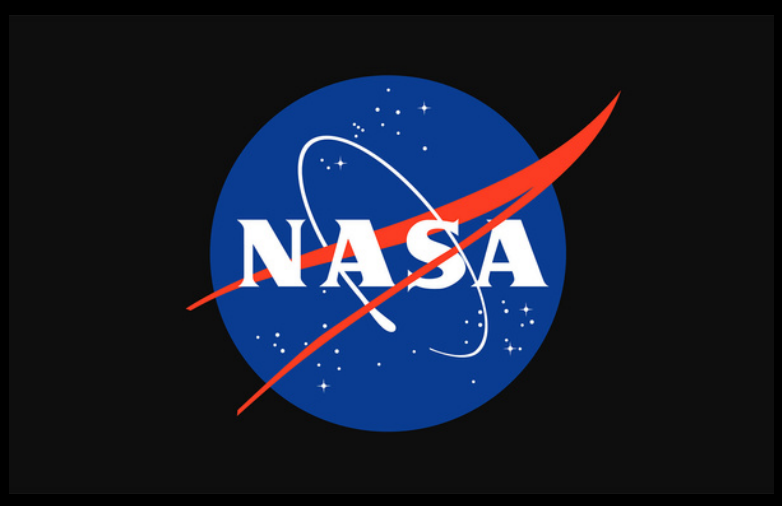
[redacted]










NASA

Australian Government
Department of Defence
Defence Materiel Organisation

Australian National Codification Bureau

# Certificate

This is to certify that:

[redacted]

located in:

[redacted]

[redacted]

was given a

**NATO Commercial and Government Entity Code (NCAGE)**

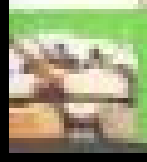
of

[redacted]

Director
Australian National Codification Bureau

[redacted]






Please Note: Any changes to your existing details should be advised to the Bureau by fax [redacted]13 9282 3358 to ensure effective trading between the ADF and your company can continue.

DEFENCE MATERIEL ORGANISATION

# As close as you can get to 100%

TorqueTest BV – Schellingstraat 4 – NL 4879 NK Etten-Leur

Dynamometers
1 to 6.000.000 Nm
0 to 6.000 Upm

mail@torquetest.com
tel. +31 765 020 601
fax +31 765 017 029

TorqueTest

## 1. Test report MGT magnetic face couplings and Parallel transmission

### 1.1 Introduction

This is the complete test report of the magnetic face couplings, and the magnetic parallel transmission from MGT.
The couplings are categorized, see attachment. Tests are done in rejection and attraction and in different configurations. Three coupling parts on both driven and driving side was the limit. Air gaps of 1, 3 and 5mm were used with face couplings. Airgap of 1,5mm was used with the parallel transmissions. Since the couplings are not always flat, the air gap could not be determined very secure. This should be taken into account when interpreting the results. Every measurement was done three times.

assemble

The face couplings were built-up out of 2, 3, 4, 5 or 6 discs. More than 4 does not seem economical. The parallel transmissions were built-up out of 1 against 1 disc, too 4 against 4 discs with single disc en double disc assemble.
See attachments for a description of the test system. All test results are attached in tables and graphs.
User pages were made and attached to simplify the choice of couplings.

### 1.2 Efficiency

The efficiency of the couplings is between 99 and 100%. The exact number for each coupling is difficult to measure, since the efficiency is very high and the measurement before and after the couplings are almost the same and in the same range as the tolerance of the measuring instruments. Therefore the efficiency cannot be determined more accurate.

### 1.3 Selection

See the user page to select the right coupling for the job. To select a coupling two out of three variables must be known; speed, torque and power.
We advise to use 2/3 of the torque, as measured in the test, see the user page. So if 15 Nm is measured, 15*2/3 = 10 Nm is advised as nominal torque.
Selection on speed and power is possible on the user page.

Formula used: $P = T * \omega$

# Contact

Andrew French -  0402 383 352

andrew_french@mgt.com.au

Eon French - 0447 000 661

eon@mgt.com.au