Operator's Manual & Parts Book

UNI Feedout Wagons

14-16 cu Bathtub

UNI Engineering Ltd

"Quality made affordable"

Manufactured by
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Disclaimer

Please be aware that as every endeavour has been made to compile all correct information for your selected machine, it is possible some information may be incomplete or missing.

UNI Engineering request that you treat this book as a guide only, and offer any assistance necessary to procure the information or part you may require.

If you have any queries, please contact the office of UNI Engineering Ltd on (07) 883 1050.

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Introduction

Thank you for purchasing a UNI Engineering product. Here at UNI, our mission is to make top quality farm machinery, at an affordable price. We achieve this by sourcing only the best quality parts for our machinery and manufacturing it all ourselves in our workshop in Tirau, the heart of the Waikato.

Following the guidelines set out in this Operators Manual, will ensure you have a pleasant and trouble free experience with your UNI Product.

UNI Engineering Ltd is a dynamic company and looks to cater to all your needs. Any feedback you may have is welcomed, and can help us improve our products and services so they can ensure they perform to your expectations.

We strongly recommend you read through this Operators manual, before the first usage of your new machine. This will help eliminate any problems that may happen during set up.

Delivery

Upon delivery of your new UNI machine, please check to make sure there is no delivery damage. If damage is present, please call our office immediately so we can offer a solution.

A Delivery slip will be presented upon delivery. This is to ensure you, as the customer, understand our terms and conditions of delivery, as well as our 'pay on delivery' policy.

Payment

'Pay on Delivery'

A 20%, or other mutually agreed, deposit is required to confirm the order. Once deposit is received, manufacturing on machine begins. The balance is paid once the machine has been delivered and the customer has checked there is no 'delivery damage.' The machine remains property of UNI Engineering Ltd until full payment has been made.

Finance

Finance options are available at UNI Engineering Ltd and must be agreed upon at the time of purchase.

If a customer continues to use a UNI Product, and has broken the terms of payment, as agreed at time of purchase, UNI engineering Ltd reserves the right to charge additional hireage fees, collection costs or repossess machinery.

Warranty

The machines designed and manufactured by UNI Engineering Ltd is warranted against faulty workmanship and defective materials for a period of 12 Months from date of delivery to the first user, with the exception of contractors or commercial users, where the warranty period is six Months. Such warranty is subject to the following conditions:

This warranty covers the repair or replacement of machinery sold by UNI Engineering Ltd from damages as a result of faulty workmanship or materials in such part or machinery. It does not extend to any other loss or damage to other property or persons.

All electronic and component parts on all UNI machinery not manufactured by UNI Engineering Ltd are subject to warranty terms from its manufacturer.

No responsibility will be accepted for repairs made other than by UNI Engineering Ltd, without prior authorisation by UNI Engineering Ltd.

Warranty does not cover the following:

a) Losses sustained through delay in delivery

b) Travel expenses

c) Damage caused by accident, misuse, neglect or when operated outside of conditions for which it was designed, or deemed appropriate by UNI Engineering Ltd.

d) Any goods which have not received maintenance as set out in this book, as well as basic normal maintenance such as tightening bolts, nuts, hose connections and fittings and normal lubrication with the recommended lubricant.

e) Any second hand goods or parts, or any other goods or parts not originally supplied by UNI Engineering Ltd.

f) Any goods which has been on sold by the original purchaser

g) Items used in wagon, which wagon is not designed for, eg - Rocks

Procedure for claims

- Stop using the machine immediately
- The loss or damage should be reported directly to UNI Engineering Ltd who will advise whether it is covered by the warranty and direct the purchaser accordingly as to what action is to be taken.
- Advise UNI Engineering Ltd the Serial number of machine.

Set up and operating instructions

Hydraulic Requirements

Ensure your tractor is fitted with a remote hydraulic pressure and return outlet at the rear. If your tractor is not fitted up as such, contact your local tractor dealer for a conversion kit so the machine can be operated in both directions. It is important to use the correct type of quick release coupling ends to suit your tractor couplings as some brands of couplings have different spring tension within the coupling which may impede full oil flow. It is always best to check this.

Set up

First connect the two hydraulic hoses to the tractor. Set the revs on tractor to 1300 RPM and open hydraulic value.

Set the floor and elevator speed to suit the tractor using the control block (See diagram)

- Turn the silver knob *clockwise* to slow down floor speed and increase elevator speed or;

- Turn the silver knob *anti-clockwise* to increase floor speed and slow down elevator speed.

Tip: The *elevator* and *Sidefeed* are plumbed together and therefore both speeds will adjust in tandem.

The other valve on the control block is the pressure relief valve and *does not at any time* control the speed of the floor, elevator or sidefeed.

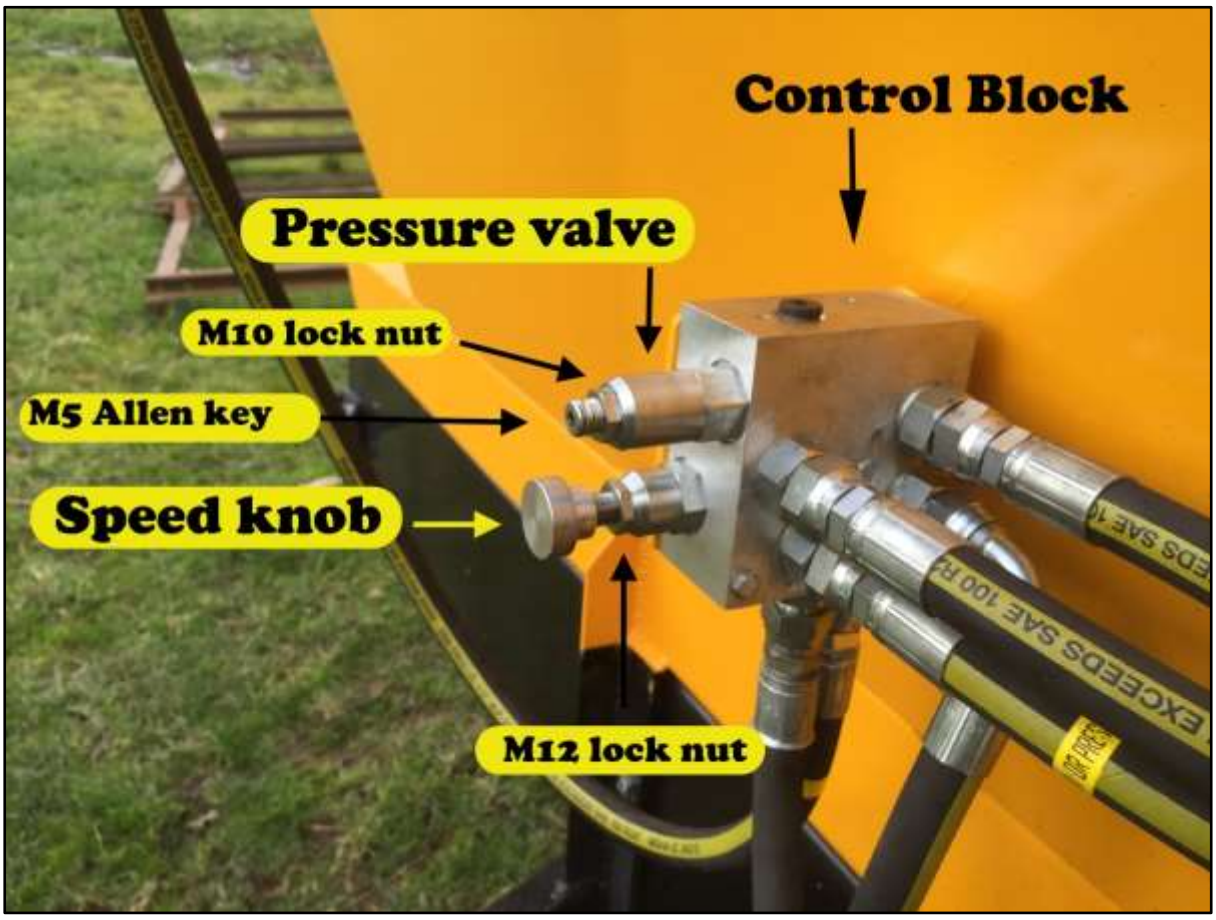
If the Wagon has a full load and the floor won't move, wind the pressure valve in half a turn, then flick the floor in reverse for a second, to reset the valve. Then flick the floor forward again. Floor should start moving. Retighten lock nut. If not, turn pressure valve in another half a turn and repeat process.

Once you have adjusted the speeds to suit your tractor, you are ready to trial feedout your first load

During your first load, wait until you have feed out about ¼ of the load until you readjust the speed of the floor and elevator to suit the kind of feed you are using. Once you have found the optimum settings, tighten lock nuts

TIP: Remember, Different *feeds* require different *speeds!* If you are changing the type of feed, eg – Silage to Palm Kernel, then you may need to readjust the speeds.

Diagram of Control Block



TIP: To tighten/ loosen a M10 nut requires a M17 spanner
To tighten/ Loosen M12 nut requires a M19 spanner

Machine Maintenance

Important maintenance after first usage:

As with all brand new machinery, there are certain checks you need to undertake after first usage, such as the following:

- Retighten wheel nuts. Paint on the wheel studs will crack after first usage and may cause wheel nuts to loosen.

- Check the PSI level on all wheels. (Check parts section of this Manuel to see more details on the wheel, specific to your machine.

- Check chain tension. *How to check*: Once Feedout Wagon is empty and is turned off, stand in the centre of the wagon and lift up floor chains. The floor chains should lift anywhere from 100-150mm from the floor. (See next page how to adjust)

Regular maintenance:

- Regular lubrication is essential and should be greased, on average, after every 20 loads. (Diagrams on next page). On a UNI Wagon, there are 10 grease nipples which need to be checked. Four on the axle, two in the rear floor adjusters, four on the bearings on the side feed. It is also important to rub grease onto the 'half shell' shaft supports as well.

  There is a grease nipple on the swivel tow eye. To grease Jack, remove cap and grease gears. (shown in page labelled 'grease points')

  Axle hubs should be greased half yearly.

- Chain tension should also be checked after every 20 loads also. (See diagram next page.)

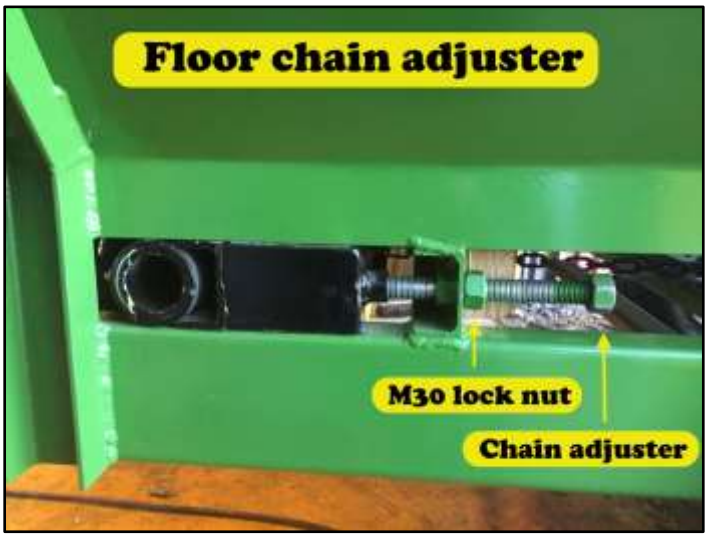
- Wheel nuts and Tyre pressure should be checked each time maintenance is performed on the machine. Eg- Make sure wheel nuts are tight and tyres are at the correct PSI

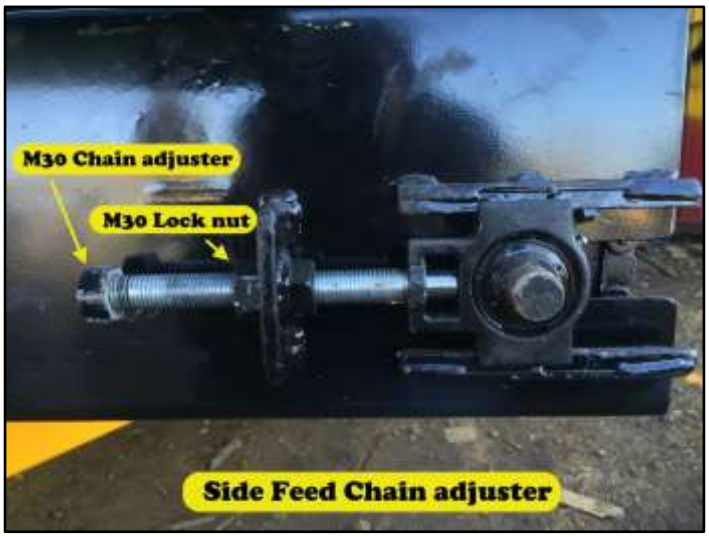
- Oil in Gearboxes should be checked half yearly. 80W90 or EP90 gear oil is recommended. (See parts section)

  TIP: It is very important to check the quality of your feed. If Objects, such as rocks, get mixed into the feed, this can cause damage to the Wagon, eg- jamming up the sprockets. This can void the warranty, so only load what the wagon is designed for.

Machine Maintenance (Cont)

Chain adjusters





Tip: These chain adjusters have a M20 thread and require a M30 spanner/socket.

Machine Maintenance (Cont)
Grease points

Shown above are the grease nipples on the axle. There is one grease nipple in each of the two collars and one in each of the two walking beams.

'Half shell' shaft supports

Pictured above is 1 of 4 bearings on sidefeed

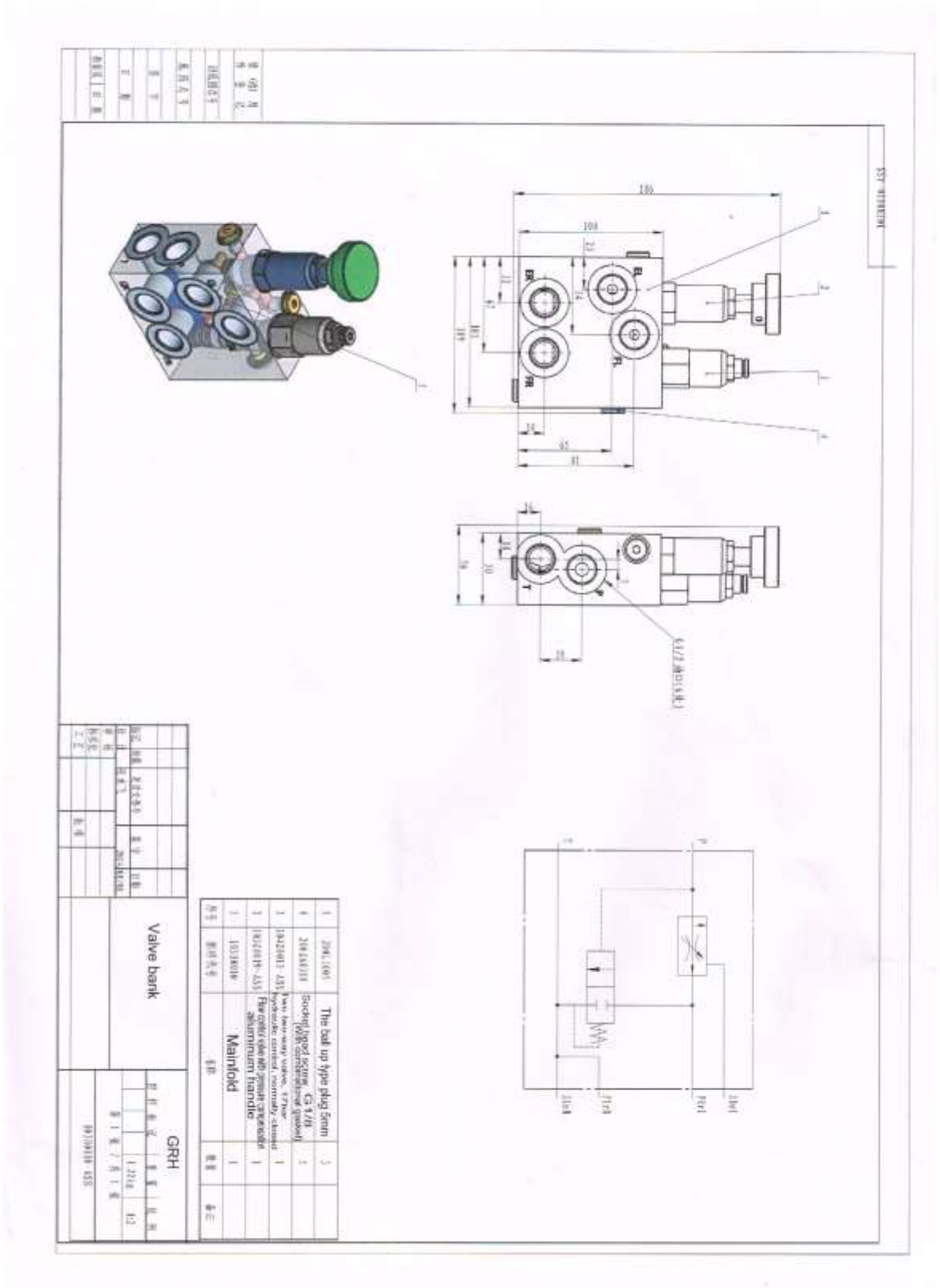
General Safety

To ensure the safety of yourself and others, please read the following safety precautions below.

Hazard	Potential risk source	Safety measure
Entanglement / trapping	Moving chains, sprockets, elevator knifes	NEVER start machinery while either yourself, or something else, is inside or on the machine! Always wear proper protective clothing. Loose attire can easily be snagged by rotating machinery.
Entanglement / trapping	Moving chains, sprockets, elevator knifes	If Machine jams during usage. NEVER attempt to service the machine while it is still running!
Damage to fingers and/or eyes through high pressure fluid ejection	Hydraulic oil pressure leaks	Release all hydraulic pressure from implements before commencing service.
Crushing or trapping	Movement between tractor and machine	Stay clear of machine while it is in use.
Instability under varying conditions	Machine Roll over	When pulling trailed implements or loads, be sure to use a tractor of greater or equal weight than the combined weight of the load and the machine.
Accident or damage due to incorrect use of machinery.	Untrained users operating machine.	Ensure person operating the machine has been trained and is competent in driving both the tractor and the machine.
Fire	Under certain hot or dry conditions, or extreme fire risk days, a fire can ignite.	Carry a suitable fire extinguisher.

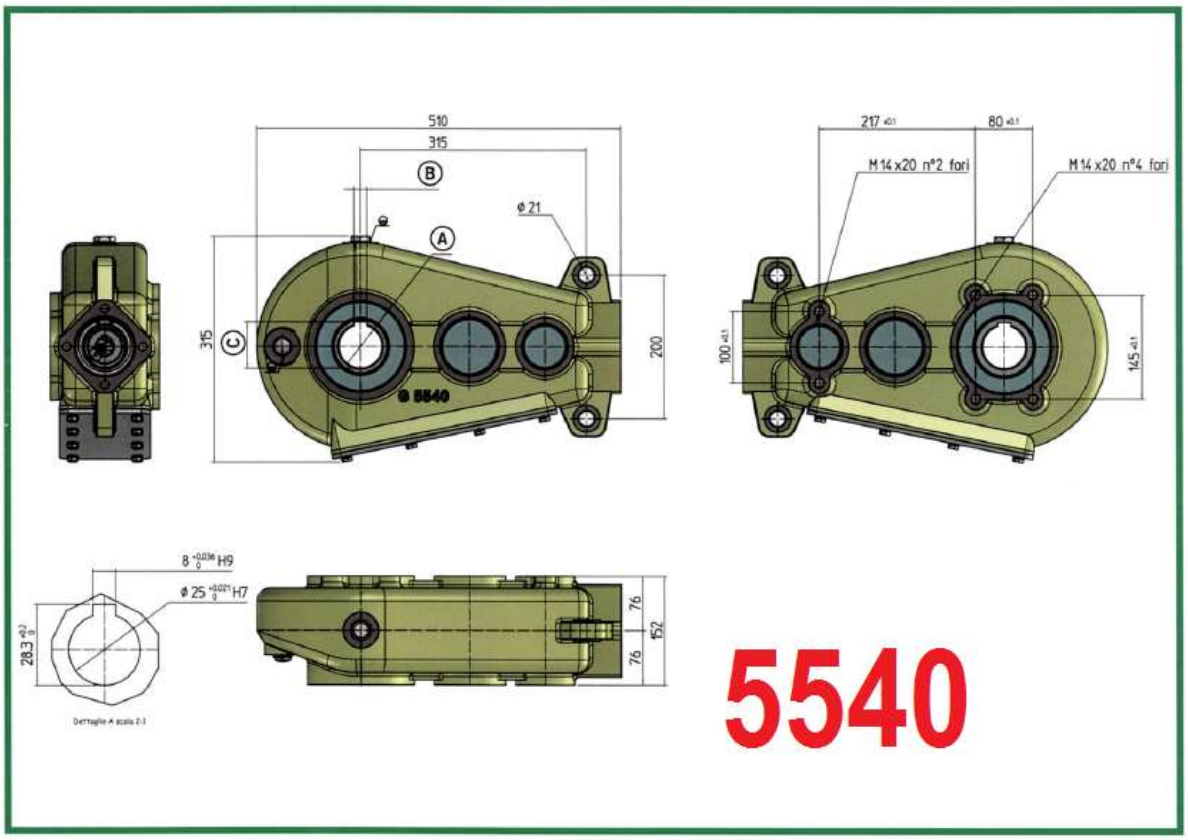
Parts section

Control Valve Assembly



Gearboxes

Floor Gearbox



Rapporto *Marcha* Razão	Momento torcente in uscita *Momento de força na saída* Momento de torsiòn N·m	Peso Kg *Peso Kg* Peso Kg	Lubrificazione *Lubrificaciòn* Lubrificação	Temparatura di impiego *Temperatura de utilizo* Temperatura de utilização
1/35,36	4000	57	ESSO GEAR OIL CE80W90	- 20° / + 80°

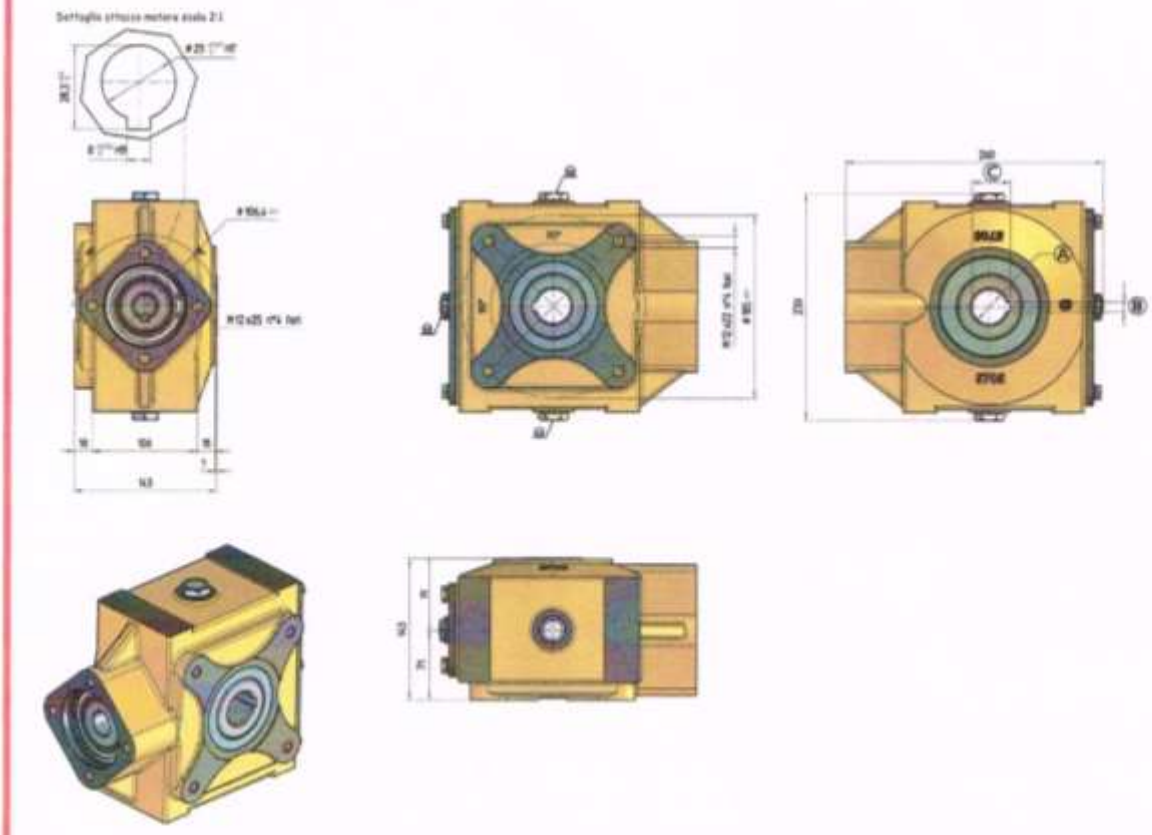
A	B	C
Ø 50	14	53.8
Ø 55	16	59.3
Ø 60	18	64.4

Gear Boxes Cont.

Elevator Gearbox

Riduttore idraulico
Gearbox for hydraulic motor
Reductor Hidràulico

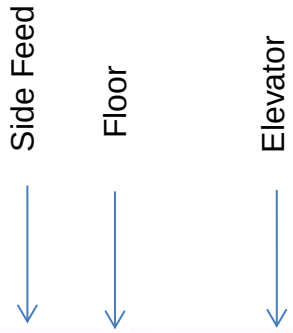
5705



Rapporto *Marcha* *Ratio*	Momento torcente in uscita *Output torque* *Momento de torsión* *N - m*	Peso Kg *Peso Kg* *Weight Kg*	Lubrificazione *Lubrificación* *Lubrification*	Temperatura di impiego *Temperatura de utilizo* *Operating Temperature*
1/4	1200	18	ESSO GEAR OIL CE80W90	-20° / +80°

Codice *Code* *Codigo*	A	B	C
1007104	Ø 35	10	38,6
1007083	Ø 40	12	43,3

Hydraulic Motors



型号TYPE		BMP-50 BMPH-50	BMP-80 BMPH-80	BMP-100 BMPH-100	BMP-125 BMPH-125	BMP-160 BMPH-160	BMP-200 BMPH-200	BMP-250 BMPH-250	BMP-315 BMPH-315	BMP-400 BMPH-400
排 量(ml/r) Displacement		52.9	79.3	98.2	120.9	158.7	196.4	241.8	317.3	392.9
最大压降 Max.Pressure.Drop (Mpa)	连续cont.	12.5	12.5	12.5	12.5	11.5	11	10	9	7
	间断int.	16.5	16.5	16.5	16.5	16	15	14	11	9
	尖峰peak.	20	20	20	20	20	20	16	13	11
最大扭矩 Max.Torque(N.m)	连续cont.	78	120	149	180	219	262	300	338	334
	间断int.	104	157	197	238	305	358	417	413	429
	尖峰peak.	130	215	268	336	430	506	537	537	537
转速范围(连续)Speed.Range(cont.) (r/min)		10-800	10-770	10-615	10-480	10-385	10-310	10-250	10-195	10-155
最大流量(连续)Max.Flow(cont.)(L/min)		40	60	60	60	60	60	60	60	60
最大输出功率(连续)Max.Output.Power (cont.)(Kw)		7	10	10	10	10	8	6	5	4
重 量Weight(kg)		5.6	5.7	5.9	6.0	6.2	6.4	6.6	6.9	7.4

Wheels and Stub Axles

Rim + Tyre Assy: 11.5/80-15.3

Tread Pattern	AW
Load Capacity	2430kg @ 40km
Ply Capacity	14
Tyre pressure	62 PSI
Height	845mm
Width	290mm
Rim	9”
Wheel colour	Silver

Monroc 70sq Stub Axle – Non braked