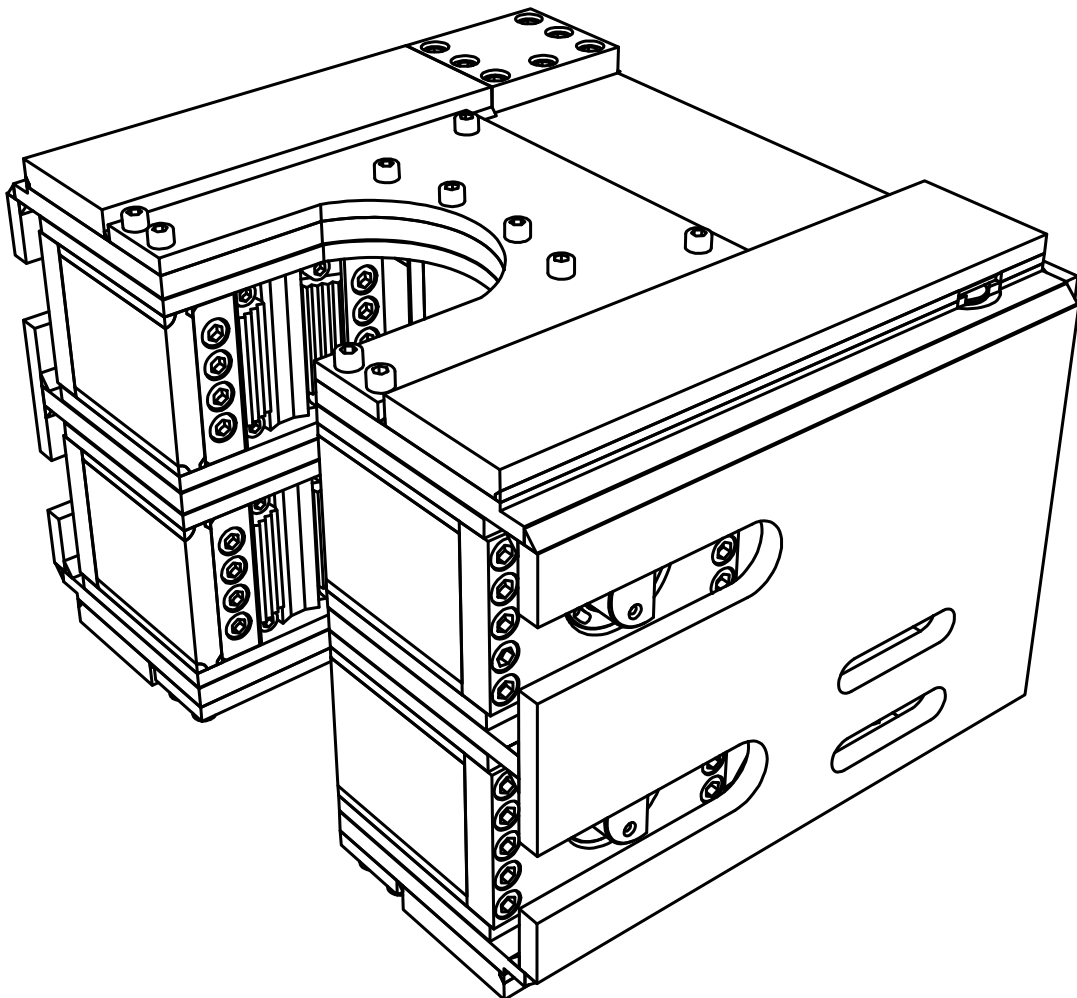




Corporaal Enterprises

OPERATION MANUAL

DUAL ROTARY BREAKOUT R2.0





Corporaal Enterprises

DUAL ROTARY BREAKOUT SYSTEM

**MANUAL
VERSION R0.2**

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INTRODUCTION

Since its foundation in September 2012, Corporaal Enterprises has developed products to help improve a broad range of drilling and mining industry operations.

Bull Ant breakout is a 90 degree swing in breakout which has been designed for general breakout applications on angle holes. It is best suited for medium to small diameter pipe.

This manual is specifically for the operation & maintenance of the DUAL ROTARY BREAKOUT.

Before operating or maintenance of this equipment this manual must be read and fully understood by all involved. It is the responsibility of the managers/employers

to ensure a copy of this manual is read by employee's that work with this equipment. The machine should be destined only to the use for which it was explicitly designed. Any other use is to be considered inappropriate and therefore dangerous.

Specifications are subject to change without notice or obligation to retrofit units already in the field. This manual will be constantly updated to remain current with new operations. Please contact CE if there are areas requiring further explanation or instruction.

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GENERAL INFORMATION

All DUAL ROTARY BREAKOUT's are delivered perfectly working and under warranty. Any original parts alteration, tampering or lack of correct maintenance, described in the manual, forfeit any warranty.

DESCRIPTION OF USE

The DUAL ROTARY BREAKOUT system is designed to rotate top & bottom clamping jaws for optimum possible use of rotation. This system is to be used for breaking out drill string joints and down the hole equipment.

WARRANTY, TERMS & CONDITIONS

WARRANTY

Limited Warranty.

(a) Consumables. Corporaal Enterprises PTY LTD warrants for a period of three (3) months after the date of shipment of the consumable products manufactured by it, or the performance of related services, under the Contract, that such consumable products are free from defects in materials and workmanship and such services are performed in a professional and workmanlike manner; provided, however, with respect to consumable products purchased through an authorized Corporaal Enterprises PTY LTD distributor, the warranty period shall commence on the date of purchase by the end-user.

(b) Capital Equipment. Corporaal Enterprises PTY LTD warrants for a period equal to the lesser of (i) three (3) months after the date of shipment, or (ii) the initial 250 operating hours.

(c) General Terms. Corporaal Enterprises PTY LTD further warrants that, to the extent applicable, as of the date of shipment or performance, all goods manufactured by it and services performed shall conform to the written specifications agreed between the parties. THIS IS Corporaal Enterprises PTY LTD'S ONLY WARRANTY. Corporaal Enterprises PTY LTD MAKES NO OTHER WARRANTY, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. As a condition to Corporaal Enterprises PTY LTD's warranty obligations, any goods claimed to be defective under the foregoing warranty must be returned to the facility designated by Corporaal Enterprises PTY LTD, which return shall be made promptly upon Purchaser's discovery of the alleged defect. With respect to consumable products purchased through an authorized Corporaal Enterprises PTY LTD distributor, the party making the warranty claim must also deliver to Corporaal Enterprises PTY LTD reasonable evidence of the date of purchase. Corporaal Enterprises PTY LTD shall perform its examination of the goods so returned by Purchaser and shall report the results of its examination to Purchaser within thirty (30) days following its receipt of such goods from Purchaser, or, if longer time is required to complete such examination, within such time as would be required through the exercise of reasonable diligence. As a further condition to Corporaal Enterprises PTY LTD's obligations hereunder for breach of warranty, Purchaser shall offer its reasonable cooperation and assist Corporaal Enterprises PTY LTD in the course of Corporaal Enterprises PTY LTD's review of any warranty claim. If requested by Purchaser, Corporaal Enterprises PTY LTD will promptly repair or replace at Corporaal Enterprises PTY LTD's expense. Goods that are non-conforming according to Corporaal Enterprises PTY LTD's warranty as set forth herein. All removal and installation of goods shall be at Purchaser's expense. Corporaal Enterprises PTY LTD reserves the right to reimburse Purchaser for an amount equal to the purchase price of any defective goods in lieu of providing repaired or replacement goods. Anything contained herein to the contrary notwithstanding, in no event shall Corporaal Enterprises PTY LTD be liable for breach of warranty or otherwise in any manner whatsoever for: (i) normal wear and tear; (ii) corrosion, abrasion or erosion; (iii) any goods, components, parts, software or services which, following delivery or performance by Corporaal Enterprises PTY LTD, has been subjected to accident, abuse, misapplication, modification, improper repair, alteration, improper installation or maintenance, neglect, or excessive operating conditions; (iv) defects resulting from Purchaser's specifications or designs or those of its contractors or subcontractors other than Corporaal Enterprises PTY LTD; (v) defects associated with consumable parts or materials, the lifetime of which is short-

er than the warranty period set forth in this Section; (vi) defects associated with Purchaser's specifications or designs or those of its contractors or subcontractors other than Corporaal Enterprises PTY LTD; (vii) defects resulting from the manufacture, distribution, promotion or sale of Purchaser's own products; or (viii) accessories of any kind used by the Purchaser which are not manufactured by or approved by Corporaal Enterprises PTY LTD.

(d) Sourced Goods. If the defective parts or components are not manufactured by Corporaal Enterprises PTY LTD, the guarantee of the manufacturer of those defective parts or components is accepted by the Purchaser and is the only guarantee given to the Purchaser in respect of the defective parts or components. Corporaal Enterprises PTY LTD agrees to assign to the Purchaser on request made by the Purchaser the benefit of any warranty or entitlement to the defective parts or components that the manufacturer has granted to Corporaal Enterprises PTY LTD under any contract or by implication or operation of law to the extent that the benefit of any warranty or entitlement is assignable.

(e) Limitation on Liability. Except as provided for herein, in no event will Corporaal Enterprises PTY LTD be liable for any indirect, incidental, special, consequential, punitive or similar damages including, but not limited to, lost profits, loss of data or business interruption losses. In no event will the total, aggregate liability of Corporaal Enterprises PTY LTD under the Contract exceed the value of the Contract under which liability is claimed. The liability limitations shall apply even if Corporaal Enterprises PTY LTD has been notified of the possibility or likelihood of such damages occurring and regardless of the form of action, whether in contract, negligence, strict liability, tort, products liability or otherwise. The parties agree that these limits of liability shall survive and continue in full force and effect despite any termination or expiration of any Contract. Any action by Purchaser against Corporaal Enterprises PTY LTD must be commenced within one year after the cause of action has accrued. No employee or agent of Corporaal Enterprises PTY LTD is authorized to make any warranty other than that which is specifically set forth herein. The provisions in any specification, brochure or chart issued by Corporaal Enterprises PTY LTD are descriptive only and are not warranties.

Corporaal Enterprises PTY LTD - 2012

TECHNICAL DATA

MODEL
DUAL ROTARY
BREAKOUT R0.0

RANGE
101.6 - 152.4MM
(4" - 6")

PRODUCT CODE
M3141-62

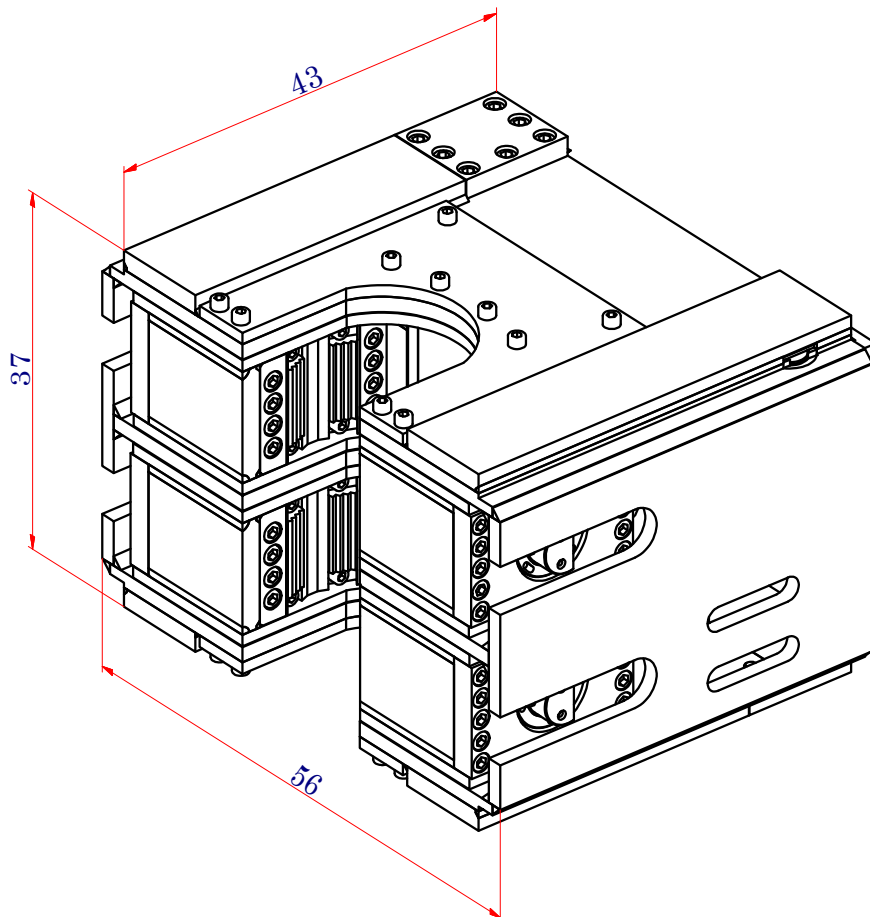
BREAKOUT TORQUE
25,489 N-M
(18,800 FT./LBS)

BASIC DIMENSIONS
43 cm X 56 cm X 37 cm

BREAKOUT ROTATION
52° TOTAL

**HYDRAULIC
SPECIFICATIONS**
207 BAR
(3000 PSI)

CLAMPING FORCE
17,500 KG F
(38,581 LB F.)



SAFETY

READ SAFE PRACTICES AND PROCEDURES, MANUAL, CATALOG INFORMATION AND PRODUCT LABELING PRIOR TO OPERATION.



Responsibility

It is the responsibility of the employer to train the employee in the proper usage of equipment and to ensure that they are used in proper manner. In many instances, injury results because of inadequate training and information being given to the employee. A part of every job instruction program should therefore have detailed training in the proper use of equipment being supplied to the employee and to all other staff working around or with the equipment.

Employers are responsible for the safe condition of tools and equipment used by employees, including tools and equipment.

Safe Practices

Failure to observe one or more of the following five safe practices accounts for most hand and power tool accidents:

1. ALWAYS WEAR CORRECT PPE ACCORDING TO THE JOB
2. SELECT THE RIGHT EQUIPMENT FOR THE JOB
3. KEEP EQUIPMENT IN GOOD CONDITION
4. USE EQUIPMENT CORRECTLY
5. KEEP A SAFE DISTANCE WHEN OPERATING

SAFETY

Safety Goggles must always be worn by persons in any area where hand and powered tools are being used.

All equipment should be kept clean, inspected on a regular basis, and repaired when signs of wear show.

Be especially careful not to place yourself in a position that could result in injury in during operation or in the event of a failure.

Never stand under or near loads being hoisted off the ground.

All equipment is only to be used for the mean which it was supplied to be used for. Do not alter or modify any part of this equipment or tooling.

Responsibility of Distributors

IT IS THE RESPONSIBILITY OF THE PURCHASERS OF CORPORAAL ENTERPRISES PRODUCTS TO CONVEY THE INFORMATION IN THIS PUBLICATION AND ANY OTHER INFORMATION RELATING TO THE INDIVIDUAL PRODUCT, THROUGH THE CHANNELS OF DISTRIBUTION, DOWN TO AND INCLUDING THE INDIVIDUAL USING THE PRODUCT

NOTE:

In view of the fact that the actual use determines whether safety requirements have been met, the ultimate responsibility to comply rests with the end user.

MAINTENANCE

Maintenance

When doing any periodic maintenance, ensure to follow company policies. Maintenance should never be performed on any equipment without checking the power supply is off and locked out or disconnected & tagged. Maintenance on this breakout should be kept up to date and logged. Maintenance should be preformed by a fitter competent in hydraulics.

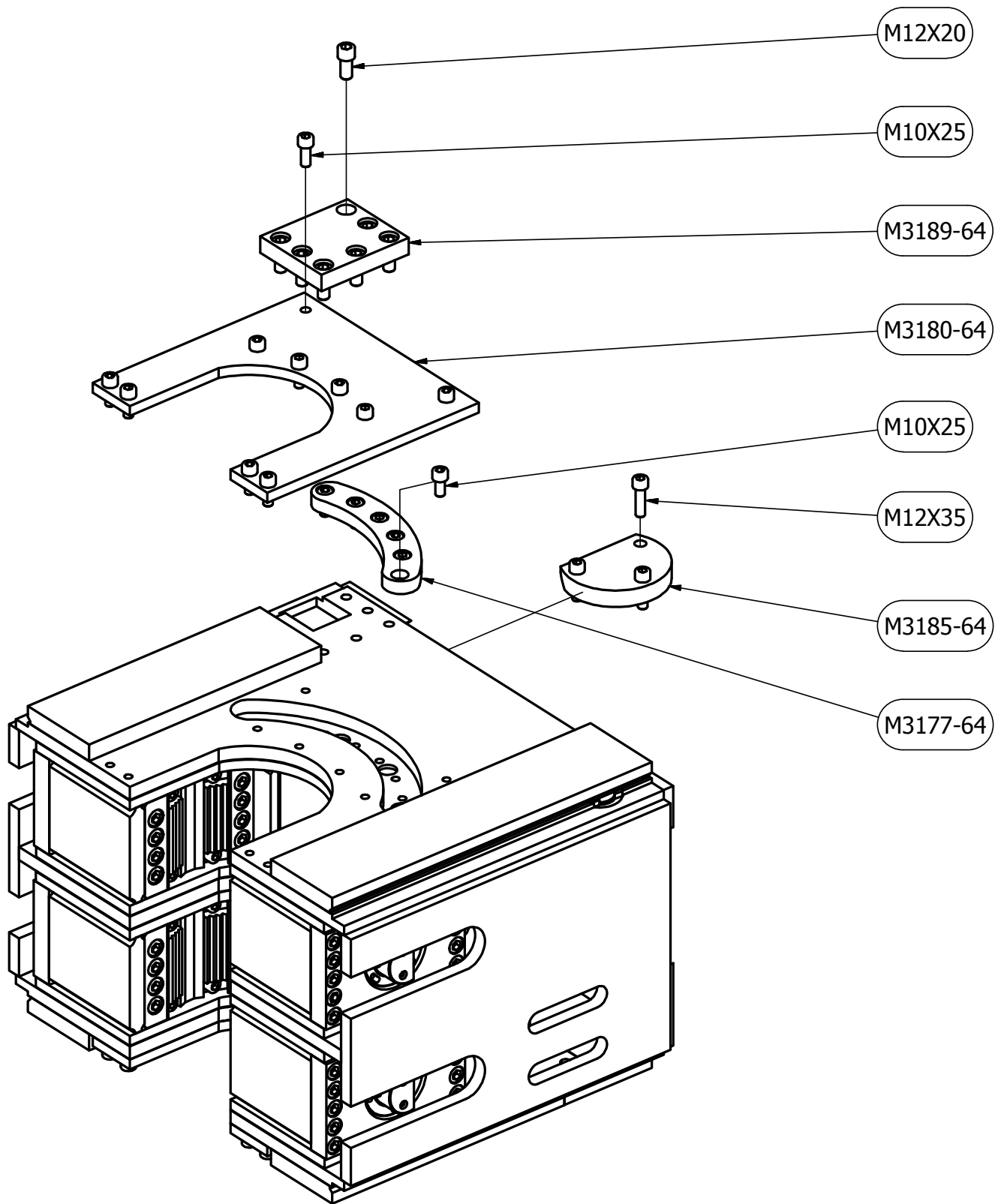
MAINTENANCE

Prestart checks

- Tong dies condition
- Jaws condition
- Signs of hydraulic leaks around rams
- Hydraulic hoses & fittings signs of leak or damage
- Check for signs of metal fatigue on the unit, brackets or mountings

Monthly checks

- Ram's chrome rod for damage
- All fasteners are still torqued up to specifications according to size
- Inner housings rotation keys



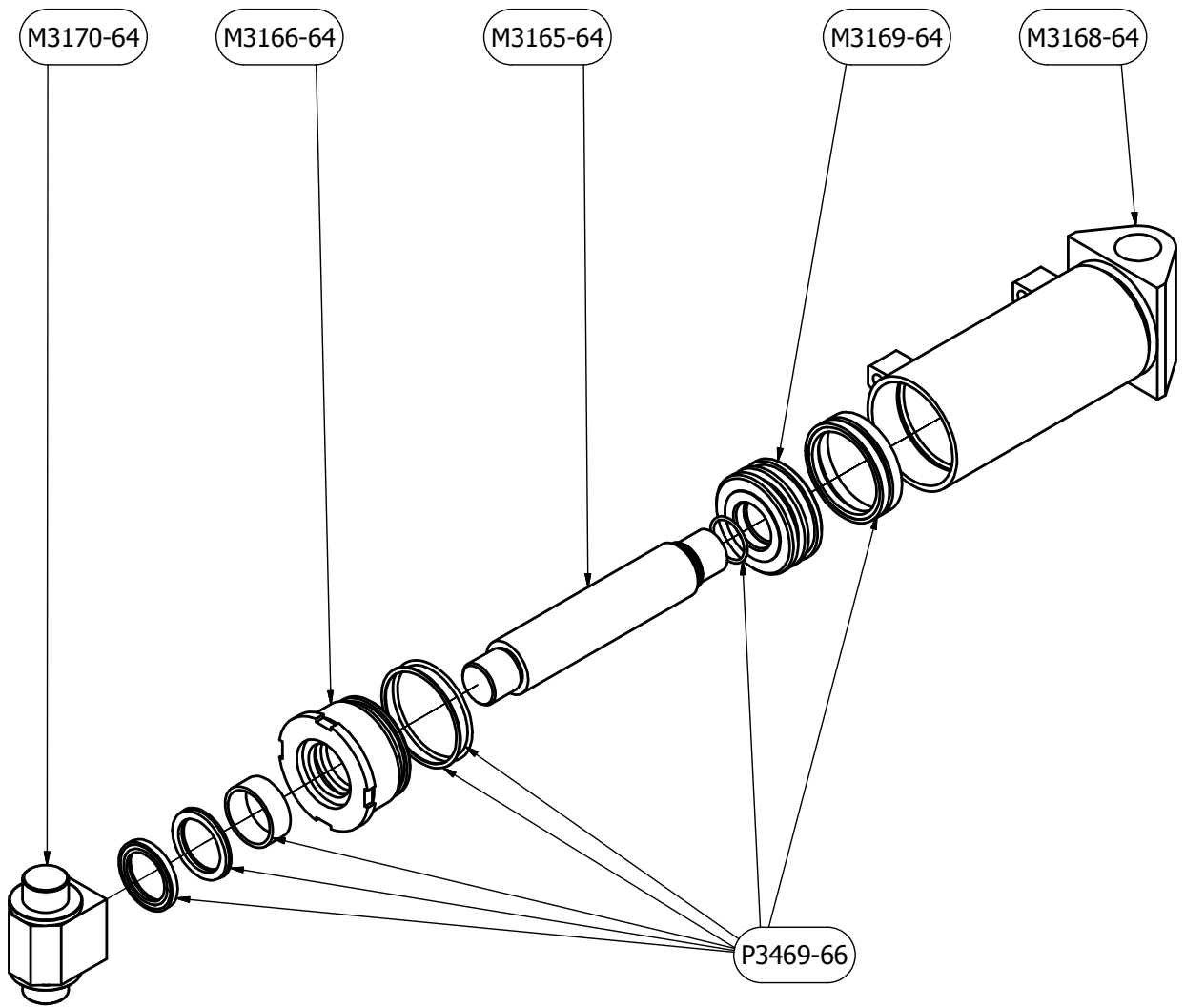
PART No.	QTY	DESCRIPTION
M12X20	14	SOCKET HEAD CAP SCREW - M12 X 20
M10X25	20	SOCKET HEAD CAP SCREW - M12 X 25
M3189-64	2	OUTER HOUSING SERVICE HOLE COVER
M3180-64	2	KEY COVER PLATE
M12X35	6	SOCKET HEAD CAP SCREW - M12 X 35
M3185-64	2	PIN RETAINER PLATE
M3177-64	2	OUTER ROTATION KEY

should you require the full manual, contact a corporaal enterprises rep today on
1300 790 925 or info@corporaal.com.au

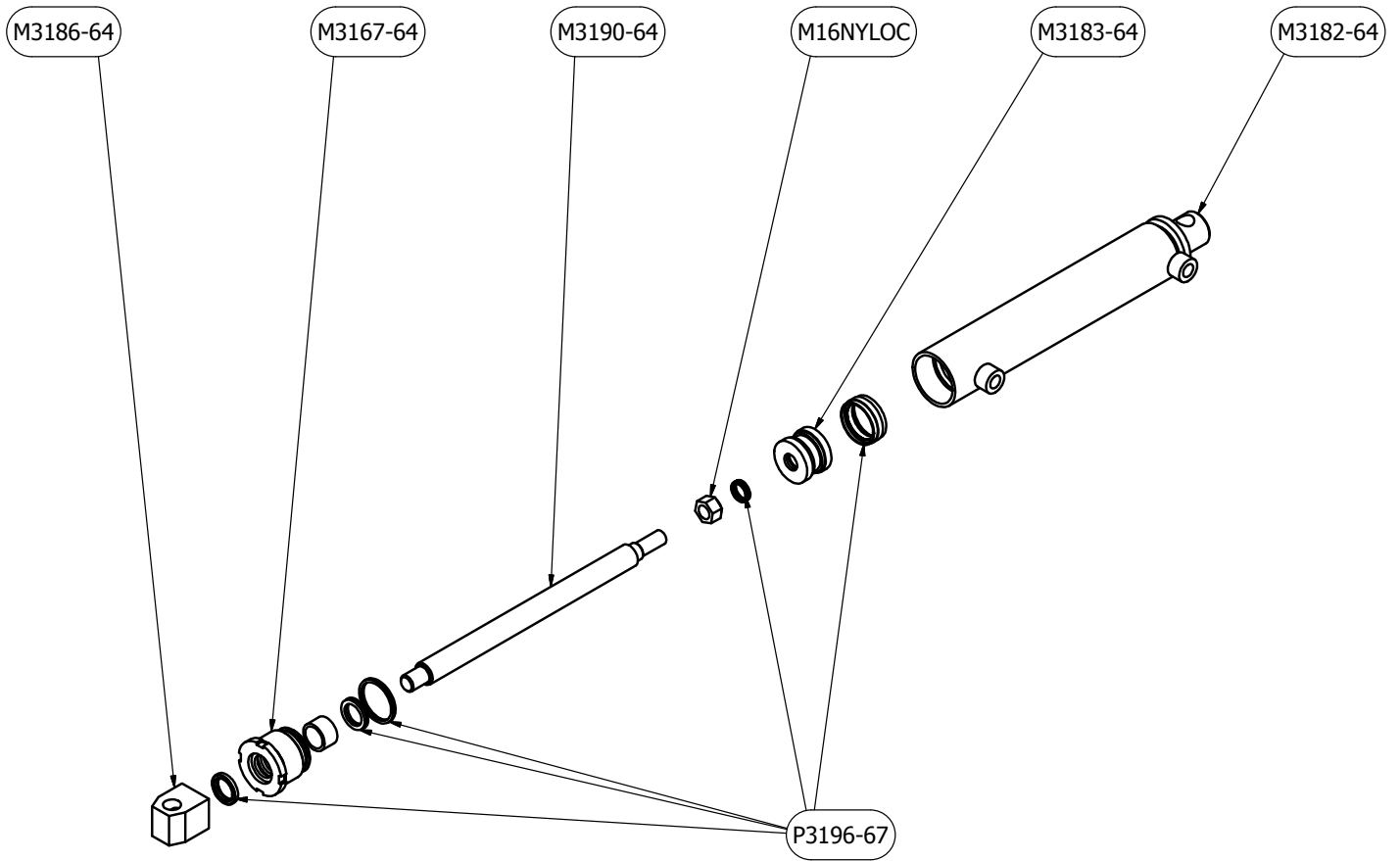
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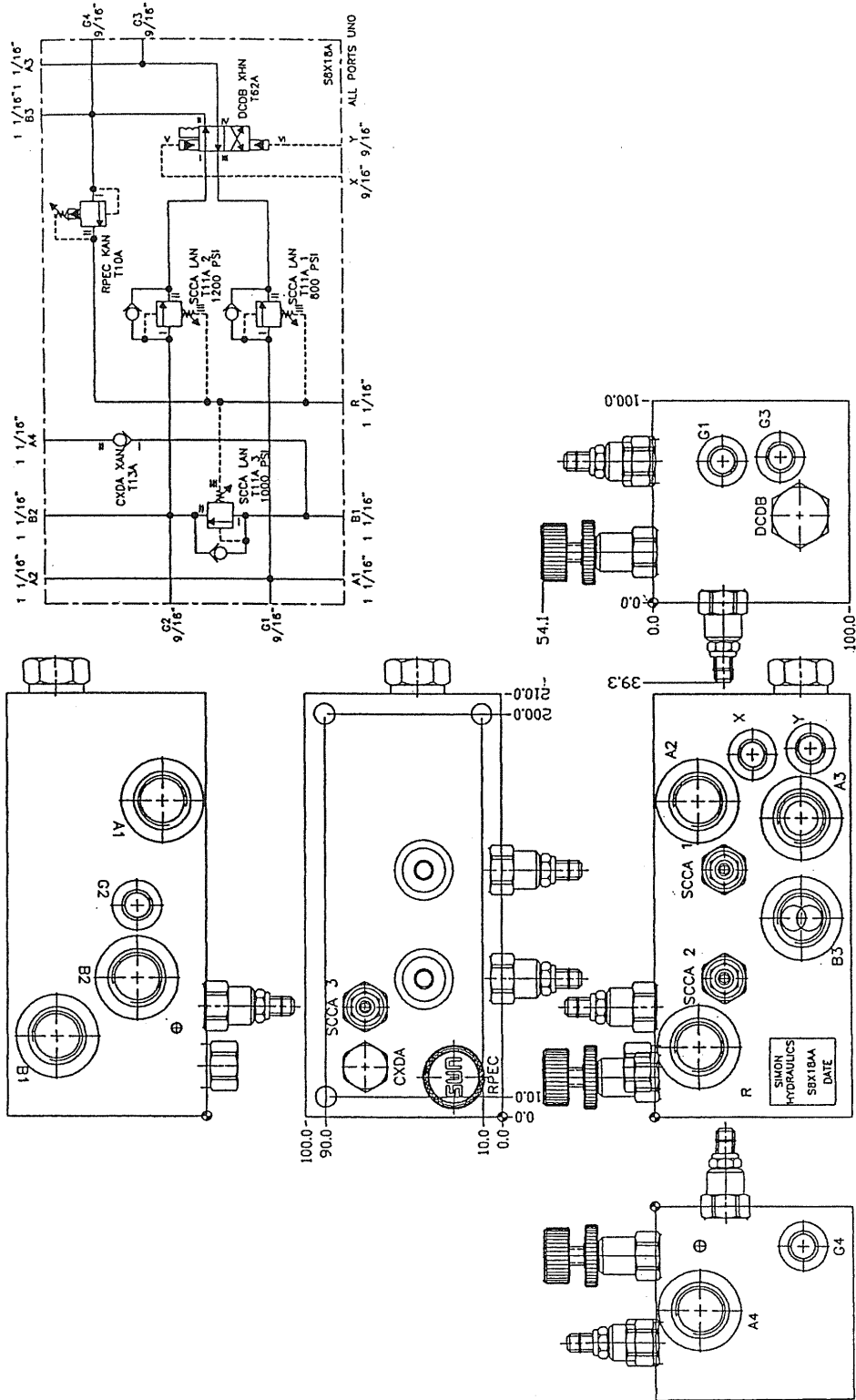


PART No.	QTY	DESCRIPTION
M3170-64	2	BREAK RAM YOLK CLEVIS
M3166-64	2	BREAK RAM GLAND
M3165-64	2	BREAK RAM ROD
M3169-64	2	BREAK RAM PISTON
M3168-64	2	BREAK RAM TUBE
P3469-66	2	BREAK RAM SEAL KIT

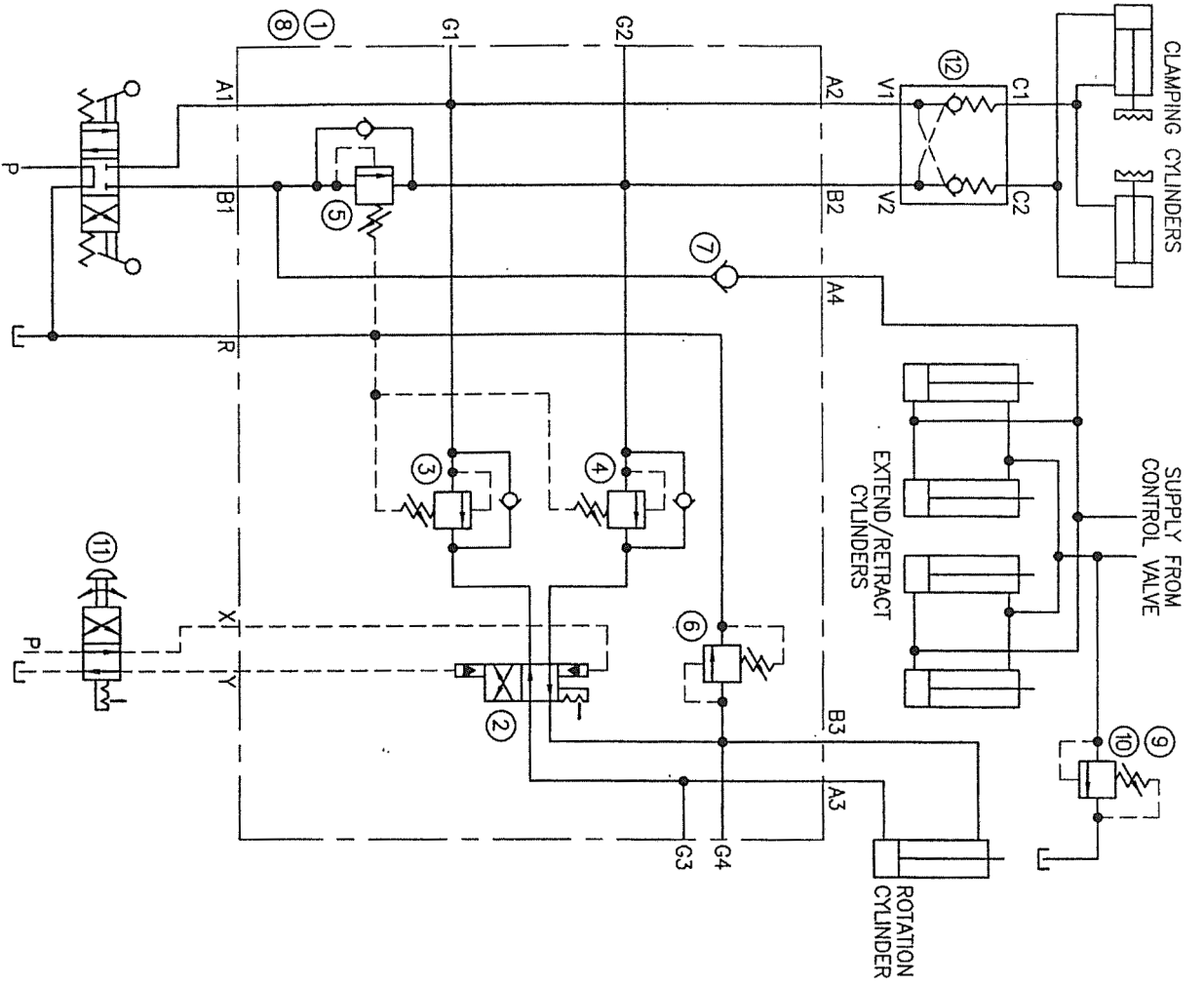


PART No.	QTY	DESCRIPTION
M3186-64	2	TRAMMING RAM CLEVIS
M3167-64	2	TRAMMING RAM GLAND
M3190-64	2	TRAMMING RAM ROD
M16NYLOC	2	M16 NYLOC NUT
M3183-64	2	TRAMMING RAM PISTON
M3182-64	2	TRAMMING RAM TUBE
P3196-67	2	TRAMMING RAM SEAL KIT

* EXAMPLE ONLY OF STANDARD RIG HYDRAULICS



* EXAMPLE ONLY OF STANDARD RIG HYDRAULICS



ITEM	DESCRIPTION	PART No.	PRESSURE SETTING
1	FUNCTION SEQUENCING MANIFOLD BLOCK (BARE)	AD12-001	-
2	CARTRIDGE, DIRECTIONAL CONTROL (MAKE-UP/BREAKOUT)	AD12-002	-
3	CARTRIDGE, SEQUENCE CONTROL	AD12-003	800 psi
4	CARTRIDGE, SEQUENCE CONTROL	AD12-004	2000 psi
5	CARTRIDGE, SEQUENCE CONTROL	AD12-005	1000 psi
6	CARTRIDGE, RELIEF VALVE (MAKE UP TORQUE)	AD12-006	ADJUSTABLE
7	CARTRIDGE, CHECK VALVE	AD12-007	-
8	FUNCTION SEQUENCING MANIFOLD ASSEMBLY	AD12-011	-
9	REMOTE RELIEF VALVE (BODY ONLY)	AD12-022	-
10	CARTRIDGE, REMOTE RELIEF	AD12-024	1800 psi
11	MAKE-UP/BREAKOUT MODE SELECTOR VALVE	AD12-025	-
12	DOUBLE PILOT CHECK VALVE	AD12-037	-

CONTACT INFO

Phone - 1300 790 925

Phone international - +61 89409 7744

Email - sales@corporaal.com.au

www.corporaal.com.au