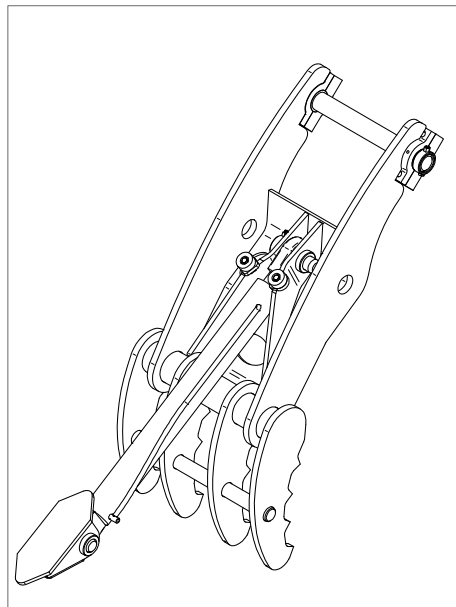


Bucket Clamp

Installation & Fitting Instructions



Doherty Bucket Clamp

Release 1 June 2012

IMPORTANT:

The booklet should be kept with the machine at all times during and after quick coupler installation. Machine operators must read and fully understand the operations manual before use.

New Zealand 07 574 3000

Australia 1800 057 021

www.dohertydirect.net

Address: Doherty Engineered Attachments Limited
12 Cherokee Place, Mount Maunganui 3116,
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PRE DELIVERY CHECK

Installation completed by:

Company:	
Name:	
Date:	
Excavator make and model:	
Coupler Serial #	
End user name:	
End user phone number:	
End user address:	
End user email address:	

Clamp pressure checked at:	
Hose routings checked and abrasion free throughout full crowd movement:	
All hydraulic connections, clean, tight and leak free:	

This form must be returned to Doherty Engineered upon completion of Installation to validate warranty.

NOTES:

INSTALLATION INSTRUCTIONS

1. Read thoroughly all instructions in this manual before attempting to fit the Doherty Bucket Clamp and associated parts to your excavator.
2. Install the Doherty Bucket Clamp using the longer main pin supplied with the Doherty Bucket Clamp. Ensure pin is pre-lubricated with grease prior to fitting.
3. Ensure the Main Clamp Body has been assembled onto the excavator dipper arm centrally. Use spacers or shims to achieve this.
4. Fit the OEM retaining bolt to the quick hitch boss to ensure the new pin does rotate independently.
5. Connect the cylinder to the main clamp body and to the stick mount. Note that rod end of the cylinder connects to the clamp body. Pre-lubricate the mounting pins with grease.
6. Invert the dipper arm to allow the clamp assembly to lie horizontally along the arm. Ensure the buffer pads are in full contact with the dipper arm and that there is a MINIMUM of 15mm clearance between the cylinder tube and the cross tube on the clamp body. If not it may be necessary to fit a packer plate to the dipper arm.
7. Ensure the hydraulic control circuit is fitted in accordance with the schematic supplied. Note that a cross line relief or counterbalance valve must be installed. Check pressures in both directions and adjust as required. Maximum operating pressure must not exceed 180 bar. (2500 psi) and this must be checked and adjusted before connecting to the cylinder.
8. Ensure the cylinder is completely closed, double check that the Doherty Bucket Clamp Assembly is sitting hard down on the stop bracket pads and ensure there is at least 15mm clearance between the cylinder tube and the clamp. Then mark the location of the cylinder mount.
9. Remove the mount pin, move the mount back a Maximum of 5mm and then TACK WELD it to the dipper arm of the excavator.
10. Refit the cylinder and slowly extend it to rotate the Clamp to the maximum position. Check that the clamp and hoses freely move without interference.
11. Retract the cylinder and confirm that the closed clearance is maintained. The cylinder mount can now be fully welded to the dipper arm. Use low hydrogen MIG or E-7016 or E7018 Welding electrodes or equivalent. Use a 9 - 10mm fillet weld.
12. Fasten all bolts, nuts, hydraulic hose and fittings securely.
13. To avoid damage, ensure hydraulic hoses are secure and tidy for the full movement of the Doherty Bucket Clamp rotation.
14. Grease and lubricate all applicable points on the Doherty Bucket Clamp Assembly.



IMPORTANT WARNINGS

Clearance Problems

Due to the Doherty Bucket Clamp being mounted to the Quick Hitch, it is necessary that machine operators be aware of possible unavoidable clearance problems between the Doherty Bucket Clamp and the excavator main boom when the clamp is in the stored position and the dipper arm is tucked in for transportation. Either careful storage of the Doherty Bucket Clamp or a scrape plate can be fitted to the underside of the main boom arm to avoid damage.

Hydraulic Circuit

Secondary relief valve **MUST** be installed in the Doherty Bucket Clamp circuit in both directions to avoid damage to the cylinder. The relief valve should be pre-set at between 150-180 bar (2000-2500 psi).

Damages to the cylinder caused by incorrect relief settings are not covered under warranty.



Warning:

Any damage should be reported immediately to the site supervisor or directly to Doherty Engineered Attachments Ltd on +64 7-574-3000 (New Zealand) or Free phone (Australia Only) 1 800 057 021 or e-mail service@dohertydirect.net

MAINTENANCE

Please ensure this maintenance record is completed for any worked completed on quick coupler.

Service record	Hour reading	Maintenance / Repair	Completed By	Date

WARRANTY POLICY

Warranty Period

Doherty Engineered Attachments Limited ("Doherty") standard warranty is for a period of twelve (12) months from date of sale or one thousand (1000) machine hours, whichever occurs first.

Warranty Inclusions

This warranty covers defects in material and workmanship and is subject to receipt of supporting evidence and/or inspection by Doherty and confirmation that said attachment or part was installed and operated in accordance with Doherty's currently published instructions. Upon acceptance, Doherty shall repair or arrange for the repair and/or full or partial replacement of such attachment.

Any attachment or part repaired or replaced under the terms of this warranty policy shall retain the warranty period pertaining to the product's original date of purchase.

Warranty Exclusions

This policy does not cover machinery, parts or accessories that are warranted directly to the end user by third party manufacturers, for example hydraulic cylinders, hoses, valves, or any other portions of hydraulic kits used in Doherty products but not manufactured directly by it. Failure to follow Doherty's or the third party manufacturer's recommendations for oil pressure and flow ratings on hydraulic components will invalidate all warranty claims relating to both the attachment and the hydraulic components of the attachment.

Doherty shall not be responsible for any problems associated with hose fittings, damage or malfunction after installation regardless of cause. If in doubt, contact Doherty for assistance and advice.

This policy does not apply to parts which have been repaired by the owner or a third party without prior formal written authorisation from Doherty.

This policy does not apply to parts which in Doherty's opinion, have been subjected to or adversely affected by operator misuse, accident, negligence, improper installation, maintenance, or storage.

Normal wear parts and parts requiring regular lubrication are not covered by this warranty.

This policy is restricted to the direct repair and/or replacement cost of the said part. It does not apply to any incidental or consequential costs such as transport, travel, injury, accident downtime, consumables and any other indirect expenses.

Doherty accepts no responsibility whatsoever for the suitability or otherwise of the carrier machine or other equipment to which a Doherty attachment may be mounted upon or fitted to.

Doherty shall not be held liable for injury or damage caused to any persons, place or machine by reason of the installation, use or mechanical failure of any Doherty attachment.

Doherty shall be under no liability in respect of any defect in the goods arising from any drawing, design or specification supplied by the buyer.

WARRANTY POLICY

In relation to the supply of buckets by Doherty the above warranty shall only apply to cracking and bending of the buckets during correct and normal usage and shall not extend to the breakage of or failure of bucket teeth, cutting edges, bucket sides or base or to any other failure in performance due to a bucket being used in applications outside of its intended specified applications, including for example where a general purpose bucket or heavy duty bucket is used for rock and concrete excavations.

Doherty shall be under no liability under the above warranty (or any other warranty, condition or guarantee) if the total price of the goods has not been paid in full.

Doherty Obligations

At its option, Doherty will repair or replace the said part. Any repair work may be carried out at Doherty's own premises, at the workshop of an authorized Service Agent/Dealer, on the site at which the part or attachment is being used, or at any other location that Doherty considers appropriate under the circumstances.

Under the terms of this warranty, Doherty's obligations are limited to the repair or full or partial replacement of the defective item(s) and do not include any costs, direct or indirect, associated with the removal or reinstallation of the attachment or part on the carry machine. This is the responsibility of the Customer.

Doherty warrants that any repair work carried out by it directly shall be conducted in a timely and professional manner. Where a third party is engaged to carry out repair work in connection with a Doherty warranty claim, Doherty's obligation and liability shall be limited to a refund of the authorized reimbursable costs charged in connection with the provision of such work.

Customer Obligations

The Customer is responsible for the correct and proper installation of the part or attachment as detailed in the Operation and Maintenance documentation supplied by Doherty, including hydraulic and electrical connections.

The Customer is responsible for the completion of the formal Pre-delivery check and the Warranty Registration forms (which form part of the above documentation) and their return to Doherty within seven days of initial commissioning.

The Customer is responsible for ensuring that the part or attachment, including any hydraulic components and fittings, is operated and maintained using best industry practice and in accordance with the Operation and Maintenance documentation supplied by Doherty. (a copy of which is available on request.)

The Customer is also responsible for notifying Doherty as soon as it identifies a defect or problem that may potentially be subject to a claim under this policy and for following Doherty's published Warranty Claim Procedure.

WARRANTY PROCEDURE

Warranty Claim Procedures

To ensure your warranty claim is processed in the fastest possible manner, please ensure the following procedures are followed:

1. Upon identification of problem/failure immediately report/notify Doherty before any work is completed on the attachment or component.
2. Complete the Doherty warranty claim form and provide all information requested and email or fax to Doherty before any work is carried out.
3. Upon receipt of the warranty claim form Doherty will assess the claim and provide in writing what action is to be taken and issue a warranty claim number if deemed warranty.
4. Any repair work may be carried out at Doherty's own premises, at the workshop of an authorized Service Agent/Dealer, on the site at which the part or attachment is being used, or at any other location that Doherty considers appropriate under the circumstances.
5. An estimate of costs must be provided in writing before any repair work commences by a third party who is not an authorised service agent/dealer.
6. Where Doherty has opted to replace in part or full, the defective components to be replaced will be dispatched as quickly as possible. Please ensure part numbers are quoted from parts manual if applicable.
7. It is the responsibility of the Customer to arrange for the delivery of the failed components.

All warranty claims are subject to Doherty's standard warranty policy.

Any repair work carried out by a third party prior to a warranty claim number been issued by Doherty will invalidate the claim. All Invoices for repair work completed by a third party must include warranty claim number, component serial number, description of work completed and date work completed.

Contacts:

New Zealand: Phone +64 7 574 3000, Fax +64 7 574 8030

Australia: Phone 1800 057 021, Fax +64 7 574 8030

All emails to be sent to customersupport@dohertydirect.net and cc'ed to your point of contact.

WARRANTY CLAIM FORM

Warranty Claim Form

Date	Warranty Claim #

Contact Information

Company	Contact	Phone	Fax
Mobile	Email	Other	

Delivery details

Provide full details

Product details

Serial number	Model	Description	Purchase date
Excavator Make	Excavator Model	Hour Metre reading	Failure Date
Description of problem, Please provide all details, photo's, video and any other information to support claim, add additional pages if required.			

Estimated repair costs

Only required if work is getting carried out by a third party which is not an authorised service agent/dealer. Please ensure estimated hours and rate is shown.

Important Notes: Please ensure Photo's are of complete item, if a component please supply photo of both component and complete product, if zoomed in for a shot, please ensure overall shot is also supplied. In regards to a Quick hitch coupler failure, please also supply photo's of the implements it is used with. Photo required of metre reading and serial plate of product.

Note: This form is available online at www.dohertydirect.net

1. Fit the new Clamp pin and Clamp body.

2. Fit Cylinder to Clamp & Mounting lug
Do NOT weld mounting lug to dipper arm yet
DO make sure cylinder is fully retracted.

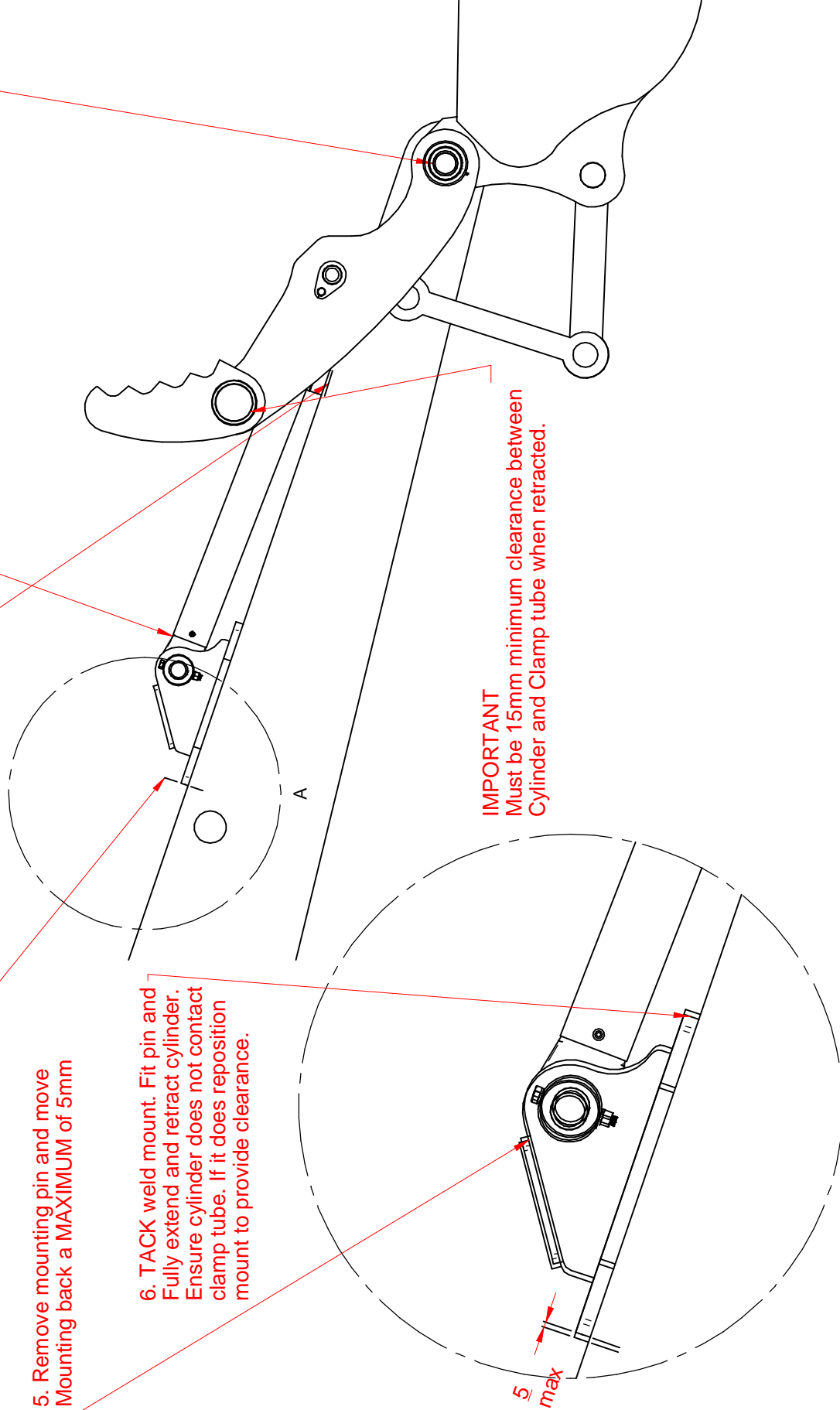
3. Rotate Clamp so that bumper pads are in contact with dipper arm

4. Mark the location of the Mounting lug on the dipper arm

5. Remove mounting pin and move Mounting back a MAXIMUM of 5mm

6. TACK weld mount. Fit pin and Fully extend and retract cylinder. Ensure cylinder does not contact clamp tube. If it does reposition mount to provide clearance.

IMPORTANT
Must be 15mm minimum clearance between Cylinder and Clamp tube when retracted.



File: C:\Users\PJD\Documents\DEA\PRODUCT MANUALS\DRAWINGS\CLAMP INSTALLATION.dft
DETAIL A

Notes:

1. Drawing developed from a 3D CAD model and printed on an inkjet printer. Do Not Scale! Consult model for dimensions not shown
2. All welding to comply with AS/NZS 1554

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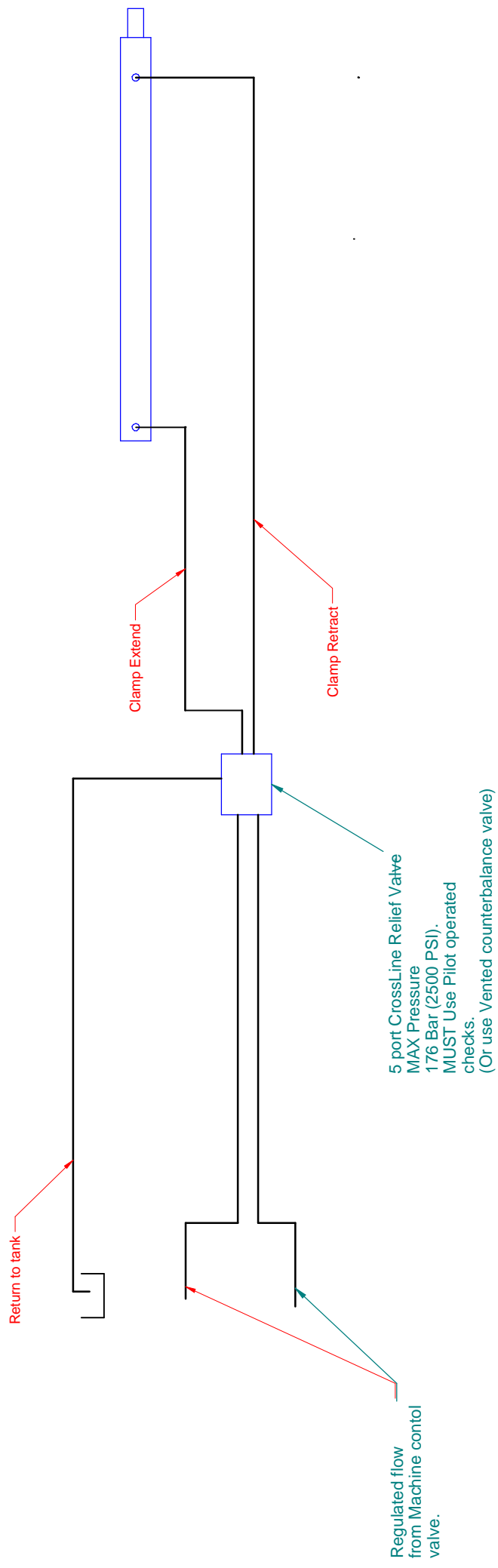
Title: TYPICAL CLAMP FITTING PROCEDURE

Author:	PJD OFFICE
Date:	05/07/2012
Modified By:	PJD OFFICE
Date:	02/08/2012
Sheet No:	1 of 4
Sheet Name:	Sheet1
Project:	xxxx
Size:	A3
Third Angle Projection	
Status:	Available
Rev:	A1
Tolerances:	X = ± 1.0 XX = ± 0.5 X.XX = ± 0.2 All dimensions in mm
(Unless otherwise stated)	Angles = ± 1.0°

DOHERTY
ENGINEERED ATTACHMENTS LTD

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Min Hose Radius 100mm
 Ensure hoses are suitably restrained clear of pinch points
 and protected from chaffing.

File: C:\Users\PJD\Documents\DEA\PRODUCT MANUALS\DRAWINGS\CLAMP INSTALLATION.dft

Notes:

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Title: TYPICAL CLAMP CIRCUIT

Author:	PJD OFFICE
Date:	05/07/2012
Modified By:	PJD OFFICE
Date:	02/08/2012
Sheet No:	2 of 4
Sheet Name:	Sheet2

Tolerances:	X: ±1.0 XX: ±0.5 X.XX: ±0.2 Angles: ±1.0°
Project:	xxxx
Size:	A3
Third Angle Projection	
Status:	Available
Rev:	A1

