



Stobie Pole Temporary Crossarm Kit

ELECTRICAL • INDUSTRIAL | TOOLS • TECHNOLOGIES
TMACTM
THEW &
McCANN
GROUP

ACTIVE INNOVATION



THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

REPAIR

The end user must not repair or modify any component associated with this device without written permission from TMAC.

If repair is required, contact TMAC.

TMAC

45 Enterprise St Cleveland

QLD 4163 Australia

Tel: (+61) 07 3826 6000

<http://www.tmacgroup.com.au/>

DEFECTS / WARRANTY

DEFECTS

Goods are warranted to be free from defects. Provided they have been used strictly as recommended and subjected only to fair wear and tear, Goods (including parts within) which are found to be defective within 90 days after delivery to the Buyer will be repaired or replaced at the option of the Seller and at its expense. Repair or replacement by the Seller is the exclusive remedies of the Buyer.

WARRANTY

To the maximum extent permitted by law, the Seller makes no warranties, either express or implied, as to merchantability, fitness for purpose or otherwise with respect to the Goods other than in paragraph above and as required by statute. The Seller is not liable for any prospective profits or special, indirect or consequential damages or any general loss or damage, or for any expense resulting from use by the Buyer or others of defective Goods. The Seller's liability is limited to no more than the sale price of the Goods plus replacement delivery charges. Prior authority for the return of goods is required by the seller.

Please contact the seller by email sales@tmacgroup.com.au, phone 07 3826 6000 or fax 07 3826 6066 for claims related to defective / warranty of goods provided.

FOR THE FULL TERMS AND CONDITIONS PLEASE REFER TO TMAC "STANDARD TERMS OF TRADE"

ROUTINE MAINTENANCE & INSPECTIONS

Routine Workshop Maintenance Inspection must be conducted at intervals of not more than 6 months.

TEMPORARY CROSSARM

- Check for surface damage to fiberglass. Clean off loose dirt or grease with a clean dry cloth;
- Check condition of black mastic liner and the locating rings. All should be undamaged and tight-fitting onto the fiberglass;
- Check condition of W.L.L. label and ensure it is legible;
- Clean off excessive dirt and grease with acetone, and allow drying time. Then wipe over with a silicone cloth to reinstate a water-repellent surface.
- To ensure the electrical integrity of the crossarm it must be tested according to the requirements of IEC 60855.

NYLON CONDUCTOR HOOKS

- Check for surface damage to the device;
- Check there is no damage or distortion to the opening device and that it operates freely.
- Check that the wing nuts turn freely and that there is no damage to the threads;
- Clean off excessive dirt and grease with acetone, and allow to dry. Wipe over with a silicone cloth;

STOBIE POLE CLAMP BRACKET

- Check the Stobie Mounting Clamp Bracket for signs of damage or distortion;
- Check that the Bellville washers are in place on the clamp jaws
- Check the jaws for embedded dirt, damage or distortion;
- Check that all bolts, nuts and washers are in good condition and that threads are clean including the Belleville washers. Lubrication of the device is not necessary and is not recommended;

MOUNTING MAST

- Check the mounting mast for signs of damage or distortion;
- Check that the hinge on the crossarm clamp swings freely, but is tight without excessive play in the hinge pin;
- Check the lobe knobs are in good condition and are free to rotate.
- Check welds for damage or deterioration.
- Check for surface damage to the mounting mast and clean off loose dirt or grease with a clean dry cloth;
- Check that all bolts, nuts and washers, including the 40mm X 40mm X 8mm mild steel washers are in good condition and that threads are clean. Lubrication of the device is not necessary and is not recommended;

CONTENTS

CONTENTS	3
BEFORE YOU START	4
GENERAL PRECAUTIONS	4
QUALIFIED PERSON	4
SAFETY SYMBOLS USED IN THE GUIDE	4
GENERAL INFORMATION	5
DESCRIPTION	5
.....	5
WORKING LOAD LIMITS	6
COMPONENT WEIGHTS.....	6
LIMITATIONS OF USE	7
BEFORE USE	7
STOBIE POLE MOUNTING CLAMP BRACKET	7
MOUNTING MAST	8
TEMPORARY CROSSARM	8
NYLON CONDUCTOR HOOK	8
OPERATION	8
FIXING THE MAST DIRECTLY TO THE STOBIE POLE	8
FIXING THE STOBIE MOUNTING BRACKET TO THE POLE	9
FIXING THE MAST TO THE CLAMP BRACKET	10
ATTATCHING THE TEMPORARY CROSSARM TO THE CLAMP BRACKET	11
MOUNTING AND OPERATING THE NYLON CONDUCTOR HOOKS	12
REPLACING THE PERMANENT CROSSARM	12
STORAGE	13
TEMPORARY CROSSARM	13
NYLON CONDUCTOR HOOK	13
STOBIE POLE MOUNTING CLAMP BRACKET	13
TEMPORARY CROSSARM MOUNTING MAST	13
ROUTINE MAINTENANCE & INSPECTIONS	14
TEMPORARY CROSSARM	14
NYLON CONDUCTOR HOOKS.....	14
STOBIE POLE CLAMP BRACKET	14
MOUNTING MAST	14
REPAIR	15
DEFECTS / WARRANTY	15
DEFECTS.....	15
WARRANTY	15

BEFORE YOU START

GENERAL PRECAUTIONS



Read and understand this guide before operating this equipment.

The TMAC Stobie Pole Temporary Crossarm Kit is to be only used by qualified personnel and must be used in conjunction with the user's own working and safety procedures, without compromising the integrity of the TMAC product supplied.

Follow all safety instructions contained within this guide.

QUALIFIED PERSON

A qualified person is one who is familiar with the installation, construction, operation or maintenance of the equipment and the hazards involved. In addition this person is competent, trained and authorized to undertake the work involved in accordance with established safety and working procedures.

SAFETY SYMBOLS USED IN THE GUIDE



Mandatory Action - This symbol indicates the action must be taken to avoid a hazard. Any information that follows this symbol must be obeyed to avoid possible harm.



Hazard Identification - This is a general warning sign. It is used to alert the user to potential hazards. Any information that follows this symbol must be obeyed to avoid possible harm.



Prohibition - This symbol indicates an action that must not be taken or must be stopped. Any information that follows this symbol must be obeyed to avoid possible harm.



Mandatory Action - ALWAYS take care to maintain even loadings on the crossarm at all times;

ALWAYS remove the temporary crossarm from the mast bracket before removing the pole bracket from the pole;

ALWAYS check that the locking pins are in place if the pole bracket is to be dismounted in a single piece;

If attaching additional services to the temporary crossarm, ensure the W.L.L. is not exceeded and the load remains balanced.

STORAGE

TEMPORARY CROSSARM

When not in use the Temporary Crossarm must be stored in a clean dry area, in the bag supplied.

NYLON CONDUCTOR HOOK

When not in use the Nylon Conductor Hooks must be stored in the bag supplied. *In storage they must be kept dry at all times.*

Ensure the Hooks are completely dry before placing them in the bag.

If the Hooks are subject to prolonged moisture absorption, this will reduce the overall strength and increase the part dimensions.

STOBIE POLE MOUNTING CLAMP BRACKET

When not in use, the Bracket should be stored in the bag provided and in a safe and in a secure place to prevent abrasion or damage while in transit.

TEMPORARY CROSSARM MOUNTING MAST

When not in use, the Mast should be stored in the bag provided and in a safe and in a secure place to prevent abrasion or damage while in transit.

MOUNTING AND OPERATING THE NYLON CONDUCTOR HOOKS



Hazard Identification - WARNING - If mounting the Nylon Conductor Hooks at the pole top, take appropriate precautions to do this safely and without strain. Sliding the Nylon Hook insulators onto the cross arm while pole mounted involves stretching to the end of the crossarm.



Prohibition - NEVER use a tool such as a spanner or pliers to tighten the wing nut or the lobe knob as this may cause damage to the assembly. The wing nut and lobe knob should be hand tightened only.

1. Slide the Nylon Conductor Hooks onto the crossarm. Ensure the opening is facing the correct way to receive the conductor to be restrained.
2. Ensure the insulators are fixed by carefully hand tightening the securing wing nut on each Nylon Hook.

Nylon Conductor Hook



Nylon Conductor Hook Mounted at beginning of Cross Arm



REPLACING THE PERMANENT CROSSARM

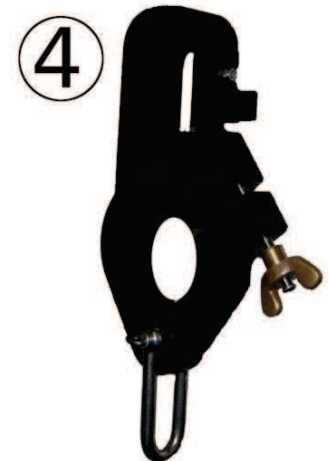
1. Ensure the Nylon Conductor Hooks are aligned with the conductors and ensure all wing nuts are firmly hand tightened;
2. Safely transfer the conductors away from the permanent cross arm onto the temporary crossarm ensuring conductor tensions are transferred in pairs to balance loads.
3. Remove the permanent crossarm;
4. Install the new permanent crossarm;
5. Transfer the conductors and services from the temporary crossarm to the new permanent crossarm, ensuring conductor tensions are transferred in pairs to balance loads;
6. Remove the Temporary Crossarm from the mast, then remove the mast and clamp bracket from the pole;
7. Dismantle all components and inspect them for damage. Clean as necessary;
8. Store all parts carefully in the bags provided.

GENERAL INFORMATION

DESCRIPTION

The TMAC Stobie Pole Temporary Crossarm Kit is designed to temporarily support energized/de-energized low voltage conductors while a damaged permanent crossarm is replaced. The kit comprises up to four elements, namely: -

1. Stobie pole mounting clamp bracket
2. Temporary crossarm mounting mast
3. Temporary crossarm
4. 4 or 5 Nylon conductor hooks



WORKING LOAD LIMITS

The Working Load Limit of the TMAC LV Temporary Crossarm & brackets is expressed as a "Maximum Working Load Limit per Nylon Hook" which is applicable for 2, 4 or 5 hooks as follows: -

Maximum W.L.L. per Insulator		
Application	Vertical & Horizontal Load	Side Load
2 Wire	271kg (2.66kN)	100kg (0.98kN)
4 Wire	192kg (1.88kN)	50kg (0.49kN)
5 Wire	137kg (1.34kN)	40kg (0.39kN)



Mandatory Action - TMAC rates the LV Temporary Crossarm and brackets for the working load limits as specified. However the user must determine in each case whether the loads applied in the field fall within the Working Load Limits.

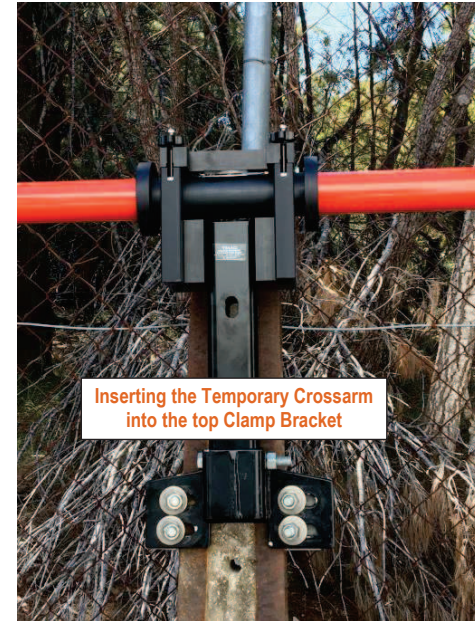
The complete device is designed to:

- Support conductor tensions at termination poles within Working Load Limits of the arm.
- Support conductors at straight-through poles within the Working Load Limits of the arm;
- Support conductors at straight-through poles with line deviation angles within the Working Load Limits of the arm;
- Support conductor tensions at strain poles within Working Load Limits of the arm.

COMPONENT WEIGHTS

When lifting, or carrying the Stobie Pole Temporary Crossarm Kit, the user should be aware of the weights of the individual components, and use mechanical assistance where necessary.

- Stobie pole mounting bracket: 4.0KG
- Cross arm mounting mast: 3.9kg
- Temporary cross arm (2700mm Arm) 7.6kg
- Nylon conductor hook (each): 0.9KG



ATTATCHING THE TEMPORARY CROSSARM TO THE CLAMP BRACKET



Prohibition - NEVER use a tool such as a spanner or pliers to tighten the wing nut or lobe knobs as this may cause damage to the assembly. The wing nuts and lobe knobs should be hand tightened only.

- 1 Open the crossarm support;
- 2 Lift the temporary crossarm into position in the top of the crossarm clamp, ensuring the black mastic liner is in the clamp and located between the locating rings;
- 3 Hand tightening the lobe knobs



Black Mastic Liner and Locating Rings



Tightening the Lobe Knobs

FIXING THE MAST TO THE CLAMP BRACKET



Hazard Identification - WARNING - If lifting the Stobie pole clamp bracket assembly to the work position fully assembled, ensure the mast locking bolt is inserted and secured before lifting.



Prohibition - NEVER use the Mounting Mast in the upside-down position!!! It is designed to operate in the position shown in the photograph.

1. Remove the locking pin from the Clamp bracket Mast socket.
2. Insert the base of the Mast into the receptacle provided in the Clamp bracket.
3. Insert the locking pin and secure with the nut provided.



LIMITATIONS OF USE



Prohibition - DO NOT USE ON POLES OTHER THAN STOBIE POLES – the Stobie Pole mounting clamp bracket is designed and produced specifically for use on Stobie poles and should be used on no other type of mount. Ensure that the maximum area of the clamp is in contact with the Stobie pole. Ensure that the set screw is correctly adjusted for the RSJ web thickness.

DO NOT MOUNT THE MAST IN ANY OTHER THAN APPROVED MANNER - The mast is designed to be accommodated in the socket of the Mounting Bracket or bolted directly to the Stobie pole provided only that the disposition of the pre-drilled holes match the holes in the pole at the desired location on the pole. Ensure use of the correct washers, including the 40mm X 40mm X 8mm mild steel washers which are used to protect the Stobie pole concrete when the mast is directly pole mounted.

DO NOT USE ON ENERGIZED HIGH VOLTAGE LINES – the temporary cross arm and associated mountings are primarily designed for use on energized or de-energized LV (415/240V) lines;

DO NOT USE ON MECHANICALLY UNBALANCED* LOADS – this can cause the arm to twist around the pole or deviate from the horizontal plane;

DO NOT USE ON LOADS exceeding the W.L.L.

DO NOT USE IF THERE IS EVIDENCE OF ANY DAMAGE OR MIS-ALLINGMENT



Prohibition - NEVER use the TMAC Temporary Cross Arm and Accessories in a position where the conductors place mechanical load on the latches of the Nylon Conductor Hook. Ensure the Nylon Conductor Hooks are positioned in such a manner that any side load is supported by the body of the Nylon Conductor Hook

BEFORE USE



Mandatory Action - ALWAYS Inspect all components of **THE TMAC STOBIE POLE TEMPORARY CROSS ARM KIT** for faulty components or damage before use.



Prohibition - DO NOT use **THE TMAC STOBIE POLE TEMPORARY CROSS ARM KIT** if any component is faulty or damaged.

STOBIE POLE MOUNTING CLAMP BRACKET

- Check the Stobie Mounting Bracket for signs of damage or distortion;
- Check that the Bellville washers are in place on the clamp jaws
- Check the jaws for embedded dirt, damage or distortion;
- Check that the adjustable set screw is correctly set for the pole web thickness.
- Check that all bolts, nuts and washers including the Bellville washers are in good condition and that threads are clean. Lubrication of the device is not necessary and is not recommended;

MOUNTING MAST

- Check the mounting mast for signs of damage or distortion;
- Check that the hinge on the crossarm clamp swings freely, and the lobe knobs move freely;
- Check welds for damage or deterioration.
- Check for surface damage to the mounting mast and clean off loose dirt or grease with a clean dry cloth;
- Check that all bolts, nuts and washers, including the 40mm X 40mm X 8mm mild steel washers are in good condition and that threads are clean. Lubrication of the device is not necessary and is not recommended;

TEMPORARY CROSSARM

- Check for surface damage to fiberglass. Clean off loose dirt or grease with a clean dry cloth;
- Check condition of black mastic liner and the locating rings. All items should be undamaged and tight-fitting onto the fiberglass;
- Check condition of W.L.L. label and ensure it is legible.

NYLON CONDUCTOR HOOK

- Check for surface damage;
- Clean off any loose dirt or grease with a clean dry cloth;
- Check there is no damage or distortion to hook strain shackle or any other component;
- Check that the wing nuts turn freely and that there is no damage to the threads;
- Check that the locking device moves freely in and out.

OPERATION

FIXING THE MAST DIRECTLY TO THE STOBIE POLE

The Mast may be fixed directly to the Stobie pole by means of the two 16mm bolts included with the mast, provided only that the pole holes and mast holes align at the desired mounting position.

Should this not be the case the Clamp Bracket may be used to provide variable mounting and thus the Mast may be mounted in any position independently of the holes location. See sections below headed "Fixing the Stobie Mounting Clamp to the Pole" and "fixing the Mast to the Clamp Bracket"



Prohibition - NEVER use the Stobie Pole Mast bracket in any position not prescribed by these instructions. The crossarm clamp should be in the upright position.
NEVER use the Stobie Pole Mast Bracket in the upside down position

1. Check all components are available, and are in serviceable condition;
2. Carry out worksite risk assessment and determine conductor mechanical loads to be taken by the LV Temporary Crossarm. Check that the loads are within the capability of the LV Temporary Cross arm and other components. See the "GENERAL INFORMATION" section under the subsection titled "WORKING LOAD LIMITS" for details of the WLL.
3. Assess whether the Stobie pole bracket is to be used or the mounting mast is to be mounted directly on the pole; determine the appropriate mounting position.
4. Lift the Mounting Mast to the work position, ensuring the temporary crossarm Nylon Conductor Hooks will be close to the conductors when the crossarm is mounted. *Take note of the weight of the assembly. For weight details see the "GENERAL INFORMATION" section under the subsection entitled "COMPONENT WEIGHTS".*
5. Ensure the Mounting Mast is square on the pole then tighten the two M16 bolts and nuts appropriately making sure the 50mm X 50mm X 8mm square steel washers are in position against the concrete face of the pole.



FIXING THE STOBIE MOUNTING BRACKET TO THE POLE



Prohibition - NEVER use the Stobie Pole Mounting bracket in any position not prescribed by these instructions! The crossarm clamp should be in the upright position.
NEVER use the Stobie Pole Mounting Bracket in the upside down position

1. Check all components are available, and are in serviceable condition;
2. Carry out worksite risk assessment and determine conductor loads to be taken by the LV Temporary Crossarm. Check that the loads are within the capability of the LV Temporary Cross arm and other components. See the "GENERAL INFORMATION" section under the subsection titled "WORKING LOAD LIMITS" for details of the WLL.
3. Assess whether the Stobie pole Clamp bracket is to be used or the mounting mast is to be mounted directly on the pole; determine the appropriate mounting position.
4. Lift the Stobie pole Clamp bracket to the work position, ensuring the temporary cross arms Nylon Conductor Hooks will be close to the conductors when the crossarm is mounted; *Take note of the weight of the assembly. For weight details see the "GENERAL INFORMATION" section under the subsection titled "COMPONENT WEIGHTS".*
5. Ensure the Stobie Clamp bracket is square on the pole then tighten the four M16 holding bolts to a torque of 120Nm ensuring the Bellville washers are in position.
6. Ensure that the adjusting set screws are correctly set for the web thickness of the pole RSJ.
7. Ensure that maximum clamp area is in contact with the RSJ web.