

USER MANUAL

ARTICULATED WALL JIB CRANES WITH SELF-SUPPORTING HUBS

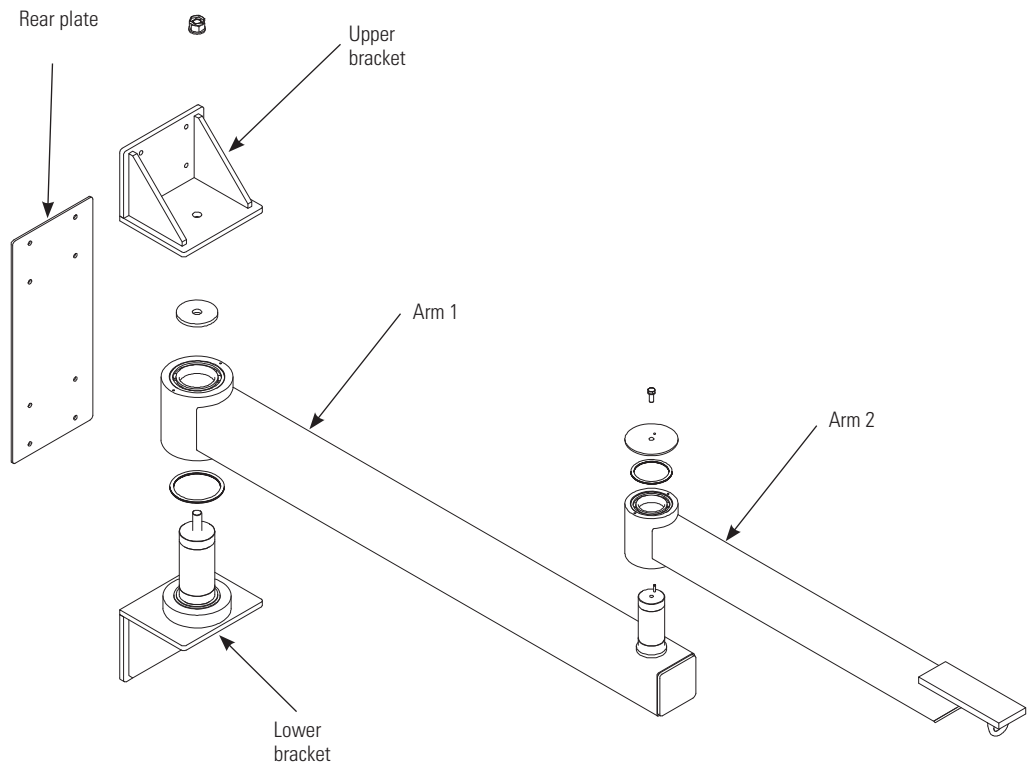


SUMMARY

- 1. ASSEMBLY INSTRUCTIONS 4
- 2. ASSEMBLY OF THE SET 5
- 3. PRINCIPLE OF ADJUSTING THE ROTATION BRAKES OF THE SWIVELS OF THE CRANES 7
- 4. WHAT TO DO AND WHAT NOT TO DO 8
- 5. TEST UNDER LOAD OF THE JIB CRANES
AND OF THE GANTRY CRANES 10
- 6. SPECIFICATIONS 12

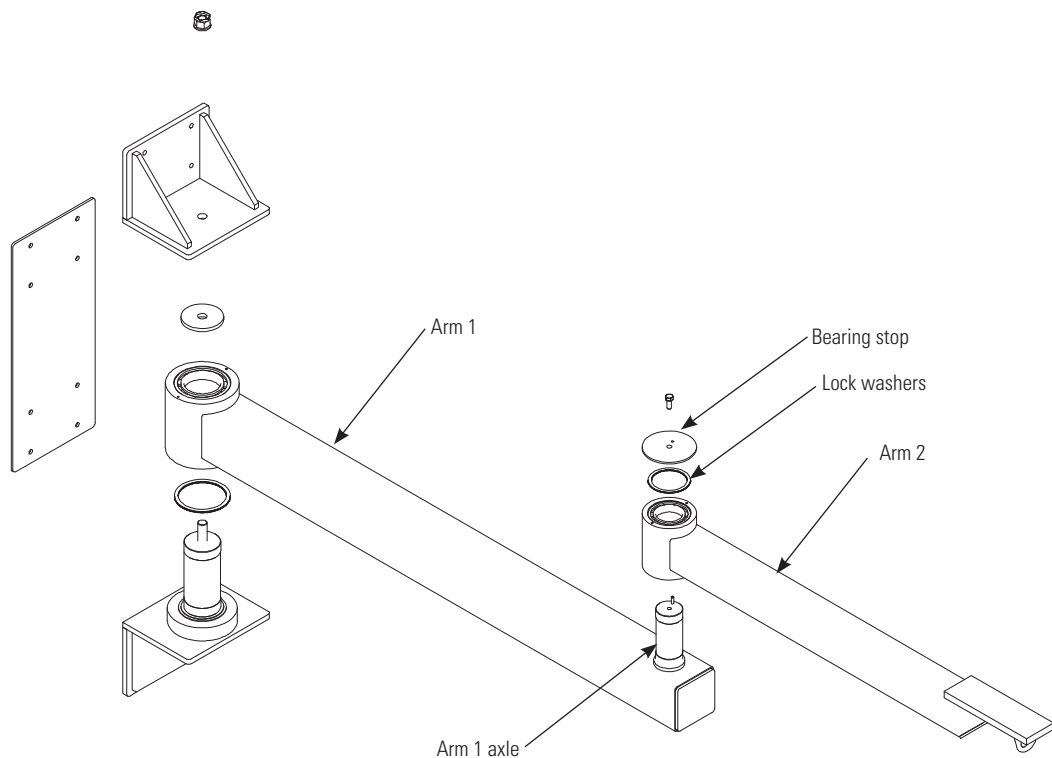
1. ASSEMBLY INSTRUCTIONS

Your crane is supplied in 5 parts.



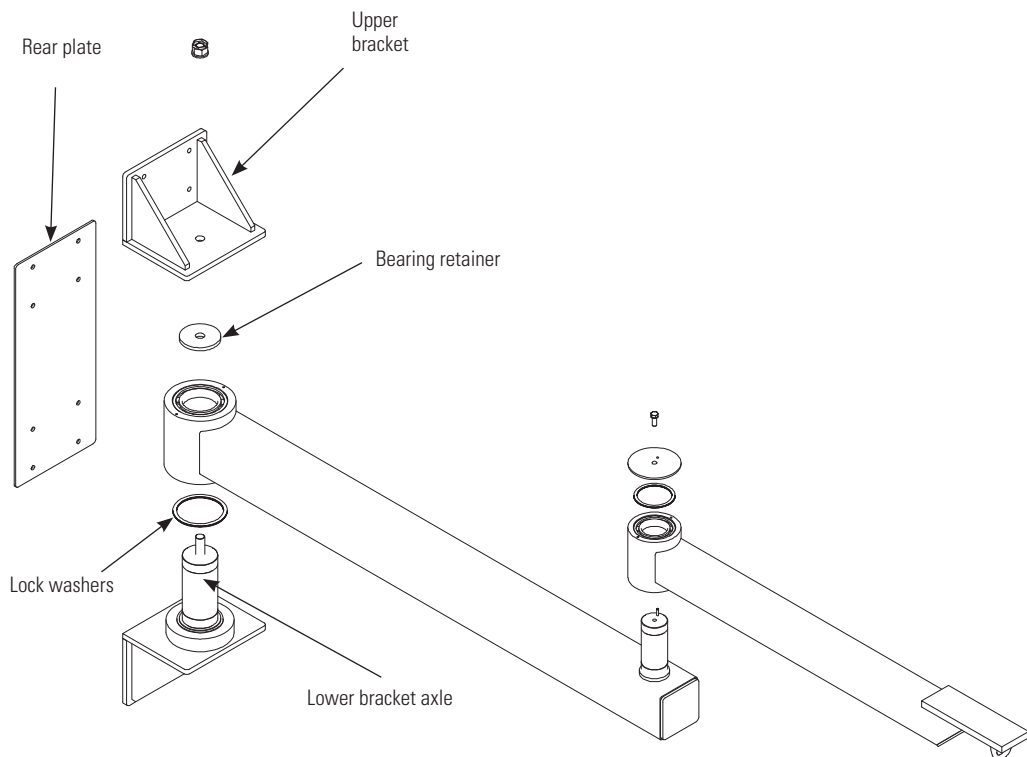
2. ASSEMBLY OF THE SET

1. Fit arm 2 onto the shaft of arm 1.
Grease the shaft to make assembly easier.
2. Fit the lock washers. Fit the bearing retainer with its fixing screw.



3. Fit the lock washers onto the lower bracket axle. Ensure they are properly centred and stacked.
4. Insert arm 1 onto the lower support shaft. Lubricate the lower support shaft if necessary.
5. Fit the bearing stop, then the upper support.
6. Mount the assembly onto the wall bracket using the rear plate.

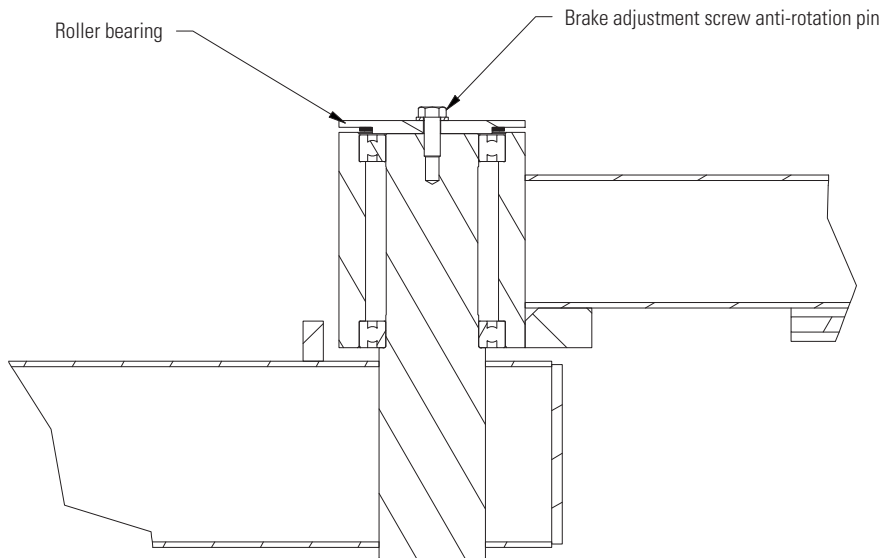
The installer is responsible for providing the fixing bolts to fit the 8 available Ø21 mm holes.



3. PRINCIPLE OF ADJUSTING THE ROTATION BRAKES OF THE SWIVELS OF THE CRANES

ADJUSTING THE ROTATION BRAKE :

- To increase the brake, tighten the adjusting screw.
- To decrease the brake, loosen the adjusting screw.



**YOUR OUTRIGGER IS READY TO OPERATE,
AND REQUIRES ABSOLUTELY NO MAINTENANCE**

4. WHAT TO DO AND WHAT NOT TO DO

It is very important to read these instructions carefully to enable you to install, use and maintain your equipment and reduce any risks caused by its incorrect use.

Any use that is not compliant with the following is dangerous and the manufacturer refuses to accept any liability in such cases.

Please comply with the instructions given below.

WHAT TO DO

GENERALLY

- Read and follow the instructions given in the introduction manual carefully, starting from initial commissioning. During repair or maintenance, use only «standard parts».
- Always keep the instructions manual and the user instructions near the equipment, available to the operator and the person in charge of maintenance.

TRANSPORT / STORAGE

- Handle the equipment and its structure either using the devices provided for the purpose or in the original package.
- Store the equipment away from any harsh environmental conditions (dust, damp...). It must be cleaned and protected from corrosion (lubrication...)

INSTALLATION / MAINTENANCE / INTERVENTIONS

- Have trained people who are electrically and mechanically competent deal with installation.
- Require absolute compliance with the safety rules (harnesses, clearance around working areas, cordoning off the area...)
- Ensure that the equipment attaching structure is rigid.
- Neutralize any sources of electric power.
- Keep strictly to the installation instructions mentioned in the equipment instructions manual.
- Connect directly the power supply cable to the power supply terminal of the electrical unit :
 - the cable must be assembled in accordance with the manual, greased and run in by several maneuvers without a load,
 - the line must be assembled in accordance with the manual, oiled and run in by several maneuvers without a load.
- Set out an inspection program and record all the maintenance work carried out on the equipment, and more particularly: hooks, sheave assemblies, chains or cables, brakes and travel end switches.
- Replace any suspicious or worn parts.

AFTER EXTENDED STOPPAGE OR DURING A CHECK :

- Check the operation and adjustment of the safety devices (brake, travel ends, limiters...) in accordance with the instruction manual.
- Regularly check the condition of the chain or cable and of the hooks.
- If a deformation or any wear is observed, replace the parts.
- Keep the cable clean and greased at all times.
- Check that all of the assembly components are tight.
- Check the condition of the lifting cable component wires.
- Check that the chains are not twisted and are free of any damage.
- Check that the steel cables strands supporting the pushbutton box fulfil their functions. The pushbutton box conductor cable is not a handling cable.

It is very important to read these instructions carefully to enable you to install, use and maintain your equipment and reduce any risks caused by its incorrect use.
Any use that is not compliant with the following is dangerous and the manufacturer refuses to accept any liability in such cases.
Please comply with the instructions given below.

WHAT NOT TO DO

TRANSPORT / STORAGE

- Never move or lift the equipment of using the electrical cables.
- Never put the hoist down without using a suitable support to avoid damage to the components on the underside.

INSTALLATION / MAINTENANCE / INTERVENTIONS

- Never modify the equipment without suitable study and the authorization of the manufacturer.
- Never change the values and settings of the safety devices outside the limits provided for in the manual or without the agreement of the manufacturer.
- Never bypass isolating switches, electrical switches, prevention or limiting equipment.

IN USE

- Never transport a load without keeping the personnel at a distance. Never have the book, loaded or empty, move above the personnel.
- Never let anybody unqualified use the equipment.
- Never lift a load exceeding the maximum operating load indicated on the equipment. Shock or accidental catching of the load being handled with the environment can generate overloads.
- Never remove the tab from the hook.
- Never block, adjust or remove switches or end of travel devices to go higher or lower than permitted by them.
- Never use the equipment to pull away, un-jam or pull sideways.
- Never use the equipment to transport people.
- Never touch any moving parts.
- Never use equipment that is in poor condition (wear, deformation...)
- Never use defective spare parts or whose origin is not fully known.
- Never swing the load intentionally.
- Do not cause abrupt movement on the equipment.
- Never use the mechanical stops as a means of repetitive stoppage.
- Never use the lifting chain or cable as a sling.
- Never sling anything from the nose of the hook (risk of damage to hook and falling of load)
- Never use the hook when cantilevered.
- Never twist the loading chains. (turn-around of the sheave...).
- Never use the electric cables to move the equipment around.
- Never leave a load hanging.
- Never use the equipment as a ground reference for welding.
- Never use the equipment for any purpose or in any place for which it was designed.
- Never use the safety devices as a means of measuring the carried weight.
- Never use the controls pointlessly (avoid keying on them). This can cause overheating or even the deterioration of the equipment.
- Never pull a load cross-wise or bring the equipment vertically above the load before lifting it.
- Never use the equipment with an electric power supply that is different from the one recommended (under or over voltage, absence of a phase...)

5. TEST UNDER LOAD OF THE JIB CRANES AND OF THE GANTRY CRANES

To ensure the good performance of the equipment, and in the absence of specific legislation, the following is recommended by the manufacturer in terms of dynamic and static load tests on standard devices.

Any other regulation, whether related to specific conditions of a country or a particular use should be specifications duly approved by the manufacturer.

DYNAMIC TESTS

For the dynamic tests will be added an overload of 10% at rated load, whether electric or manual lifting.

The tests are therefore performed on all movements (lifting, travelling, translation, rotation etc ...) It will not be necessary to lift the load to its maximum height but it is possible to do it and no time is imposed.

One move of each movement is necessary and sufficient.

Interpretation of dynamic tests :

During these tests the hoist + trolley must remain stable. Ensure no visible distortion too important.

Measure the height under beam or over beam empty before applying the load (Load at the end of the arm if it is a jib crane or at the center if it is a gantry crane) and remeasure under dynamic load.

Do the ratio to recalculate the measured deflection under dynamic load by dividing by 1.1 in order to interpret **Deflection under nominal load**, this deflection is directly proportional to the load.

Only the deflection under nominal load is interpretable to the exclusion of any other!

For pillar jib cranes, deflection observed (**interpreted under nominal load**) must not exceed $1/100^{\text{th}}$ of the span and $1/200^{\text{th}}$ of the sum Height + Span.

For wall jib cranes, deflection should not exceed $1/200^{\text{th}}$ of the span (it will not take into account the possible deformation of the post which is supposedly of sufficient size and have been calculated by the user).

For gantry cranes, deflection should not exceed $1/500^{\text{th}}$ of the span.

If the dynamic tests give satisfaction, there will be static tests.

To ensure the good performance of the equipment, and in the absence of specific legislation, the following is recommended by the manufacturer in terms of dynamic and static load tests on standard devices.

Any other regulation, whether related to specific conditions of a country or a particular use should be specifications duly approved by the manufacturer.

STATIC TESTS

Static testing has for single purpose to ensure the strength of the assembly and verify the absence of permanent deformation or residual.

No deflection measurement shall be interpreted during these tests if it is only to verify the absence of permanent deformation

Requirements during the static tests :

For static tests, it will be an overload applied **in more than 25% of the rated load**, whether it be a manual or electric lifting.

These tests will be performed only on the lifting arms of the bracket in the center position (end of the load arm in the case of jib crane and to the center of a gantry).

It is forbidden to lift the load increased by 25% with the device but additional weights are added to the dynamic load. In the case of a wall jib, the static test will be done in the sense that less strains the building structure.

The duration of this test shall not exceed 30 min.

Interpretation of static tests:

If after static tests, no permanent or residual deformation is found, the device can be operated.

As defined in the European Machinery Directive, any calculation notes will not be issued unless requested to ordering and duly accepted by manufacturer, as well as the detailed plans, schedules etc. which are the subject of the information folder and as such are confidential documents.

Concerning electric chain hoists:

It is reminded that these devices are equipped with **torque limiters** and not **load limiters**.

Also for security reasons, their setting far exceeds the trigger threshold 110% of the rated load.

It is quite acceptable that the torque limiters can be «*calibrated*» to 125 or even 130% of rated load.

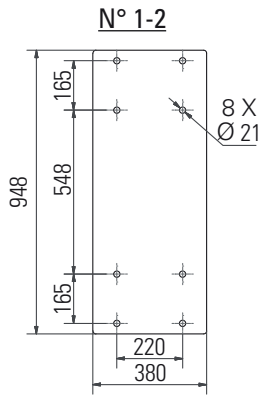
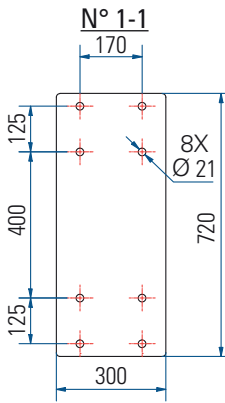
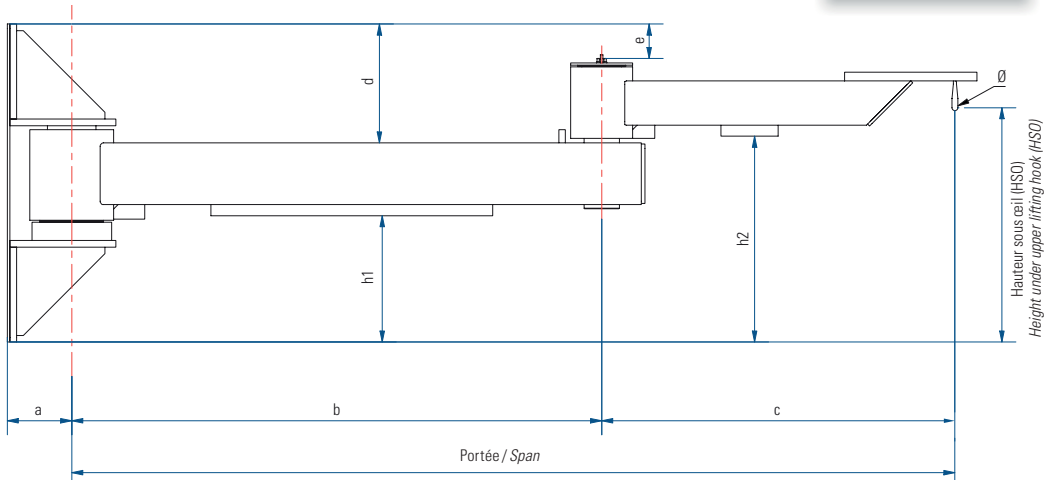
This measure aimed to anticipate wear slip friction system providing torque limit and prevent and to the risk of «*slippage*» of the load.

6. SPECIFICATIONS

300°

180°

1	Interrupteur cadenassable (option) Lockable main switch (option)
2	Alimentation électrique (facultatif) Sheath for supply cable (optional)



CMU	Portée	a	b	c	d	e	h1	h2	Hauteur sous ceil (H50)	Diamètre anneau de levage	Fixation	Poids total	Poids bras 1	Poids bras 2	Poids fixation	Couple de renversement
Max. capacity	Span								Height under upper lifting hook (H50)	Diameter lifting ring		Total weight	Weight arm 1	Weight arm 2	Weight of fixation	Maximum moment
kg	m	mm	mm	mm	mm	mm	mm	mm	mm	mm	N°	Kg	Kg	Kg	Kg	DaNm
50 (30)	2	146	1200	800	269	78	286	466	531	43	1-1	157	59	22	76	265
	2,5	146	1450	1050	269	78	286	466	531	43	1-1	171	67	28	76	343
	3	146	1700	1300	269	78	286	466	531	43	1-1	186	76	34	76	428
	3,5	146	1950	1550	269	78	286	466	531	43	1-1	200	84	40	76	519
	4	146	2200	1800	269	78	286	466	531	43	1-1	214	93	45	76	615
	4,5	146	2450	2050	269	78	286	466	531	43	1-1	228	101	51	76	719
80 (50)	5	146	2700	2300	269	78	286	466	531	43	1-1	242	109	57	76	829
	2	146	1200	800	269	78	286	466	531	43	1-1	157	59	22	76	336
	2,5	146	1450	1050	269	78	286	466	531	43	1-1	171	67	28	76	430
	3	146	1700	1300	269	78	286	466	531	43	1-1	186	76	34	76	532
	3,5	146	1950	1550	269	78	286	466	531	43	1-1	200	84	40	76	640
	4	146	2200	1800	269	78	286	466	531	43	1-1	214	93	45	76	752
125 (50)	4,5	178	2450	2050	328	68	346	656	531	48	1-2	469	207	85	177	1153
	5	178	2700	2300	328	68	346	656	531	48	1-2	492	222	93	177	1325
	2	146	1200	800	269	78	286	466	531	43	1-1	157	59	22	76	485
	2,5	146	1450	1050	269	78	286	466	531	43	1-1	171	67	28	76	614
	3	146	1700	1300	269	78	286	466	531	43	1-1	186	76	34	76	751
	3,5	178	1950	1550	328	66	346	656	754	48	1-2	422	177	68	177	1092
250 (50)	4	178	2200	1800	328	66	346	656	754	48	1-2	446	192	77	177	1282
	4,5	178	2450	2050	328	66	346	656	754	48	1-2	469	207	85	177	1479
	5	178	2700	2300	328	66	346	656	754	48	1-2	492	222	93	177	1685
	2	146	1200	800	269	78	286	466	531	43	1-1	157	59	22	76	780
	2,5	178	1450	1050	328	66	346	656	754	43	1-2	375	147	51	177	1113
	3	178	1700	1300	328	66	346	656	754	43	1-2	399	162	60	177	1352
500 (50)	3,5	178	1950	1550	328	66	346	656	754	43	1-2	422	177	68	177	1597
	4	178	2200	1800	328	66	346	656	754	43	1-2	446	192	77	177	1856
	2	178	1200	800	328	66	346	656	754	43	1-2	352	132	43	177	1486
	2,5	178	1450	1050	328	66	346	656	754	43	1-2	375	147	51	177	1850
	3	178	1700	1300	328	66	346	656	754	43	1-2	399	162	60	177	2226
	1000 (100)	2	178	1200	800	328	346	656	754	43	1-2	352	132	43	177	2793

(...) Poids estimé du palan.
 (...) Estimated weight of the hoist.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

