# PSI STRAND CHUCK MANUAL

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Introduccion

A word about SAFETY vs. PRODUCTIVITY. Throughout this manual we stress safety first. That is the way it should be. No one wants to have someone hurt or killed on the job. Many times with a strand failure, not only is there a safety compromise but it will cost you money, too. Money lost due to extra OSHA inspections, rejected products, plant shutdowns, overtime, and increased insurance rates add up fast.

Do it right the first time! Save lives and money, too!
Chapter 1
Understanding Strand Chucks

Strand Chucks, also known as grippers, wedges, donuts, and lockoffs, are cylindrical metal devices used for gripping the prestressing cable, known as strand, while under tension. There are several strand chuck manufacturers and many different sizes. However, they all work basically the same way.

Components that make up a multiple use strand chuck include a cap, spring, retaining ring, three jaw segments and a body. The body is a round cylinder approximately 4" to 5" in length with a tapered hole through the center which allows the three jaw segments to fit inside. Each jaw segment is also tapered, the outside being smooth while the inside has many rows of little ridges known as teeth. The jaw teeth are what bite into the strand, keeping it from slipping through. The retaining ring is used to hold all three jaws together, both in and out of the chuck body. The cap and spring fit together to provide constant pressure on all three jaw segments, keeping them in line even under tension. (See diagram 1).
How Strand Chucks Work

In prestressing, the objective is to pull the strand, stretching the cable to a predetermined load. Once the required level of tension is reached, the stressing ram releases the tension and the strand chuck takes over. The strand chuck holds the stretched strand in place without letting it slip back to its original length.

Strand chucks are used at both ends of the form, also known as a "bed". The end of the form in which the stressing jack is located is known as the "live end". The opposite end of the form is the "dead end". In some cases, as many as 70 to 80 chucks may be used on just one bed. Many times the loads placed upon strand chucks in normal use may exceed 20,000 to 40,000 pounds of force (depending upon strand size). That is enough force to cut a man in half should a strand let go or break. At all times, safety must be the number one concern!

All too often people ask, "It's just a chuck so why are they so expensive?" Strand chucks are manufactured using high grade steel and very detailed heat treating. Each component has to meet very fine tolerances that will enable parts of the same size and brand to fit together with ease year after year, yet be able to withstand the rigorous demands of prestress operations. When you are dealing with the safety of the people out in the plant, strand chucks are a small price to pay.
Chapter 2

Chuck Maintenance Room

The area in which the chucks are cleaned, inspected, lubricated, and stored is known as the "chuck maintenance area or room". The room should be large enough to handle the number of chucks necessary to run a plant on a daily operational basis. The area should be well ventilated and free of moisture and airborne contamination such as saw dust, metal dust or shavings, and any spray such as paint or form oil. Such contaminants can settle onto exposed chuck components and cause a jaw to stick or hang up. Make sure the maintenance area is efficient. Have everything set up so the chuck maintenance person can comfortably move around the area. The person should be able to go from one procedure to another without having to handle the chucks twice or move things around. (see diagram 2).

![Diagram 2]

The chuck maintenance area should be secure. You cannot have a successful chuck operation when unauthorized people are allowed to walk into the chuck area and walk out with a handful of chucks that may or may not be ready for use. Only allow the persons responsible for chuck maintenance to access the maintenance area. Know that every chuck that goes out the door is operationally ready.
The necessary tools needed to run a successful chuck operation are as follows: a horizontal drill motor with drill chuck, a heavy vise, at least one chuck removal tool for every size strand chuck used, one sliding hammer to use with the removal tools, and a well-lit, large workbench.

If natural ventilation is not available, an exhaust fan should be installed. Some supplies that are needed include chuck lubrication, of which there are several different types on the market that work (see Chapter 7), retaining rings for every size of jaw used, jaw and body cleaning brushes for every size of chuck used (see Chapter 6), and safety glasses which must be worn when using the jaw and body cleaning brushes.

Finding the right person to do the chuck maintenance can be challenging. This person should be willing to learn, have an understanding of why procedures must be followed, and take their job seriously. Not doing their job or cutting corners could get someone killed. It's better to get someone who has no prior chuck experience than hire someone who thinks they know all about chucks and is unwilling to change. Having a properly trained backup person is a good idea. Do not allow a temporary fill-in to substitute unless that person has the necessary training.
Chapter 3

Types of Chucks

The most widely used strand chuck is the multiple use chuck with cap and spring. Another type is known as a reusable anchor chuck or short bodied chuck. This has the same jaw assemblies as the longer multiple use chuck. However, the body is much shorter and the anchor chuck has no cap and spring. The anchor chuck is used primarily on the dead end of the bed (opposite from the jacking end). No load transfer takes place at the dead end, therefore, the cap and springs are not necessary. Next is the splice chuck. This chuck is used to join two pieces of strand together in the bed. The splice chuck is really two chucks in one. Two chuck bodies are combined with a screw-on coupling in the middle. Inside each chuck body is a three-piece jaw assembly identical to the jaws used in both the multiple use chuck and the anchor chuck.

NOTE: Special caution should be used when connecting splice chucks to the strand. The ends of the strand that go into the splice chuck should be cut with a cutoff saw. Do not use a torch to cut any strand that will go into a splice chuck. The heat from a torch can alter the molecular structure of the strand up to 6 inches from the cut. If torch cut strand is used in splice chucks, a strand failure could occur. The ends of the strand should also be clean and free of burrs. The strand should slide all the way in until it stops against the coupling. This is the only way to ensure the jaws will fully grip the strand. (See diagram 3). Splice chuck bodies must be screwed on to the coupler as far as the threads will allow.
Hydraulic stressing systems known as jacks are used to grab and pull the strand. Stressing jacks consist of a pump unit or power unit and a ram. There are basically two types of rams, the center hole and the open box. The center hole ram has a special set of gripper jaws inside. When the strand is fed through the hole in the front of the ram, the gripper jaws grab hold of the strand. When hydraulic pressure is applied, the jaws start moving towards the back of the ram pulling the strand. The open box ram is open on top and has a built-in rectangular box toward the front of the ram known as the "chuck box". A regular multiple use strand chuck is slipped on to the strand. The strand chuck is then placed into the chuck box with the strand coming out the front end of the ram. When hydraulic pressure is applied, the whole chuck box with chuck moves towards the back of the ram pulling the strand. (See diagram 4). With either style ram, the gripper jaws or the strand chuck should be cleaned and inspected.

![Diagram 4]

When stressing, the ram must be in-line with the strand horizontally and vertically. Any off-center stressing could result in damage to your chucks or even a strand failure. (See diagram 5). The front of the ram that makes contact with the strand chucks on the form should also be inspected. Look for dents or high spots that could keep the ram from centering. Equally important are the ends of the forms known as "abutments". Usually there will be holes in the abutment for the strand to go through. The area around the holes should also be inspected for unevenness.
Some types of stressing jacks have a feature that allows the ram to slowly release the tension on the strand, gently transferring the load on to the strand chuck. By not using this ease-off feature, the load transfer is sudden and could result in damage to both the strand and the chuck. Such a shock to the strand is known as "shock loading". For best results and safety, follow the stressing jack manufacturer’s recommendations. Require the jack operator to have a thorough working knowledge of the equipment and the stressing unit’s manual.

Diagram 5
Chapter 5

What To Do When Your New Chucks Arrive

When a box of strand chucks or chuck supplies arrive at your plant, where do they go? Do they go to the office or directly to the chuck room? Whoever signs for the package should first inspect the box for damage. If there is a good chance some of the contents have been lost or damaged, have the delivery person document the problem. (This could help if a claim is filed.) Once the chuck maintenance person has the box, locate the packing slip. It will be inside or attached to the outside of the box. Check the contents with the packing slip. Look for correct sizes and quantities. If there is a discrepancy, call the supplier so the order can be corrected. Now you are sure that you received what you ordered. Next, forward the packing slip to the office for processing so the bill can be paid. If the chucks or components are going to be stored, keep them in their original box (unless wet) and store them in a secure, dry place until needed. Chucks may come with a protective coating. A recommended practice is to clean and lubricate them before their initial use.

The protective coating itself is not detrimental to the performance of the chucks. Unfortunately, when some brands of chuck lubricant are applied over the existing protective coating, the combination of the two can create a putty-like substance. The buildup inside the chuck can diminish the performance and lead to excessive seating loss. If this has occurred, all contaminated jaws and bodies need to be soaked in either kerosene or mineral spirits. This will loosen and help dissolve the gummy buildup. After soaking the parts, wipe them off with a rag to remove any remaining buildup. In rare situations where the buildup has become severe, the above procedure may have to be repeated several times.
Chapter 6

Regular Chuck Cleaning

Once the strand chucks have been used, they need to be cleaned and inspected after each use. In prestress plants, there is a combination of contaminants that will interfere with the chuck's performance. Some of these include rain, dirt, dust, concrete paste, metal fragments, form oils, grease, paint, rust, and the list goes on. When contamination gets into the chucks and is left unchecked, several things can happen. The chuck may lockup on the strand requiring the use of a chuck removal tool. Contamination can also cause one or more jaw segments to hang up in the body during stressing which could lead to strand failure. Another common problem that occurs is lubricant buildup. Some chuck lubricants used over and over create an uneven layer of buildup inside the chuck body and jaws. Under a load, the jaws are riding on a rough, uneven surface inside the body causing the jaws to hang up. Any buildup in the teeth area of the jaws will diminish the gripping efficiency resulting in excessive strand slippage.

(See diagram 6.)

Diagram 6
Areas that need to be cleaned include the inside of the chuck body and the front and back of the jaw assemblies. Any other spots that have a noticeable buildup should also be cleaned. The most common practice involves using a horizontal drill motor and drill chuck with the body brush or jaw brush installed.

**Caution:** Protective eyewear should be worn. Gloves are also recommended.

With the drill motor running and **up to speed**, insert the strand chuck body over the body brush and gently press it against the brush. Repeat this process several times. Do not waggle the chuck body back and forth on the brush as this will damage the brush resulting in less uses. Now check inside the body. It should be smooth and free of buildup. If not, repeat the process. (See diagram 7).

![Diagram 7](image)

When cleaning the jaw assemblies, leave the retaining ring on to keep all three jaw segments together. Use the jaw cleaning brushes in the drill motor the same way the bodies are cleaned. Now look at the teeth. Make sure the valleys between the teeth are free of buildup. Any buildup on the outside of the jaw can be wiped off with a rag and mineral spirits. (See diagram 7). **Note:** If buildup on the bodies and jaws is excessive, the pieces may have to be soaked in mineral spirits or kerosene and then wiped with rags.

Some success has been achieved by the use of industrial grade tumbling machines to clean chuck bodies and jaws. With this method, the number one rule is to use only soft, natural media such as walnut or pecan shells. Using hard man-made media such as ceramic beads will dull the jaw teeth, ruining the jaws. Bodies, caps and jaws should never be tumbled together as damage can occur.
Chapter 7

Strand Chuck Inspection

Now that the surface contamination has been cleaned off, you can see what condition your chucks and components are in. The two basic types of wear are usage wear and damage wear. Usage wear is caused by normal use like worn, dull jaws, broken or shredded retaining rings, worn chuck bodies, caps that no longer stay connected, and worn-out springs. (See diagram 8).

Diagram 8
The chuck body is almost perfectly round inside. When the chuck body is struck with enough force to dent it, the body can be knocked out of round. Then the next time that body is used, the chuck will lock up even worse. To free the chuck now will take even more force damaging the body further. This will continue until the chuck finally fuses to the strand and must be discarded. Another concern is safety. Any time a strand chuck is struck with enough force to dent the body, a small microscopic crack or deformation in the steel can occur. Over time and further abuse, the crack can enlarge to the point that the chuck body splits or explodes, releasing the strand causing severe injury or worse. If you see a person striking a strand chuck, that worker is compromising the safety of all who work around that bed.

Never apply heat to the strand chuck to get it to release. Concentrated heat could change the heat treating of the metal which will also make the chuck body unsafe. In the event a strand chuck is locked up on a piece of strand, cut the strand and place the chuck and the strand in a bucket and return to the chuck maintenance area for proper removal. (See Chapter 10). Other damage can show up in the jaw assemblies. Jaws that have burned through teeth (See diagram 9) have had the strand slip through the chuck with enough force to erode the teeth anywhere contact was made. Many times this is a sign of shock loading. (See Chapter 4). Other causes may include dirty jaws, contamination of the strand, or severe jaw offset. Any jaws that have missing teeth should be discarded.
Another form of damage wear is jaw cracking. The most serious type of cracking occurs across the jaw from left to right known as transverse cracks. (See diagram 10). Some causes include improper cleaning or lubrication when one or more of the jaws hang up in the body. The uneven loading puts most of the load on just one or two jaws. Another cause is improper ram alignment. When the ram is not in-line with the strand, unequal loading takes place inside the chuck.

Improper heat treating during manufacturing could also be responsible. Should this type of cracking occur, save the jaws and call the manufacturer. Tip cracking, while not as severe, will still lessen the life expectancy of your jaws. (See diagram 10). Tip cracking is usually a sign of overstressing or a combination of several factors, including dirty or poorly lubricated chucks, a misaligned ram, a rough or uneven abutment, shock loading, and even mixing brands of chuck parts. Jaws that have small tip cracking on the thin end of the jaw many times can continue to be used. However, they should be monitored and discarded if the cracks become worse.

It is vital that the people working in the plant understand that striking a chuck with a hammer or hard object is like striking a live hand grenade.

Diagram 10
Lubrication is just as important as cleaning and inspecting. Having a thin layer of lubrication between the inner wall of the chuck body and the outer wall of the jaw assemblies will enable all three jaw segments to move efficiently up and down inside the chuck. Remember, the more efficient your chucks perform, the more uses you can expect from them. The time involved with lubricating the chucks far outweighs the time it takes to get unlubricated chucks apart.

There are several different kinds of chuck lubricants on the market that work well. Some include powdered graphite or moly-type aerosol spray and teflon sprays. The powdered graphite has been used for many years with good success. The drawback is graphite is very messy. Anything it comes in contact with turns black. Graphite is a very fine powder so the chuck maintenance person should wear some kind of OSHA approved respirator. The graphite or moly spray is also widely used. The spray is not as messy and can be applied with greater accuracy than the powder. Some drawbacks may include bad smell, long drying times, and buildup. Teflon spray is relatively new to the market. However, reports from customers have all been good. The teflon spray does not smell bad, has a faster drying time, and does not buildup like some graphite sprays do.

**NOTE:** Always follow the manufacturer’s recommended instructions. Some lubricants require special care.

A word about drying times. All types of graphite or moly spray must be dry before reassembling the chuck. If the chuck is reassembled before the spray has dried, the lubricant can act like a glue.

Strand chucks should always be lubricated in the chuck maintenance area so the components will have a chance to dry and also to control the amount of dust and airborne contaminants that will stick to them during the drying process. At some prestress plants, the chucks are not lubricated until they are out at the form and ready to be put on the strand. This is not a recommended practice. The chucks do not have sufficient time to properly dry. They also stand a better chance of contamination by dirt, dust, etc.

When lubricating, the outside of the jaw assembly should be dusted or sprayed taking care not to expose the teeth to any lubricant. The inside of the chuck body should also be lubricated. Once dry, you should be able to place the jaw assembly into the chuck body and lightly press. Now turn the body upside down and the jaws will fall out. If the jaws do not fall out, there may be some buildup or damage that was missed or just a spot that was missed when lubricating. Once the problem is found, fix it.
Chapter 9
Stressing With The Strand Chuck

During the form setup, there are several important precautions that should be followed. The first is protecting the strand. When stringing the strand through the form, try not to let the strand lay in or drag through the mud as this can contaminate the chucks. Don't hit the strand with anything or kink the strand. Any time there is even a small nick or kink in the strand, that area could be a weak spot that could fail under a load. Be observant. Look for possible problems while the strand is being placed into the form. **AT NO TIME** should the strand be exposed to torch heat or weld splatter. Just one little bit of weld splatter hitting the strand is all it takes to change the metal structure of the strand, which in all probabilities, will fail under tension. Try to avoid strand contact with form oils. Not only could this cause chuck slippage, it could also affect the concrete adhering to the strand. Make sure no strands are crossed up in the form.

Once the strand is in place, it's time to concentrate on the ends of the form. The strands that come out of the abutments at the ends of the form should stick out far enough so the stressing ram can engage them. Before the chuck can be put on the strand, the ends of the strand should be checked for burrs and cutting torch slag. Grind anything off that would cause the chuck to hang up. Check the strand surface for contamination and wipe it off if necessary. Remember when the chuck goes on the strand, whatever was on the strand may now be in the chuck.

When placing chucks on the strand, start at the dead end (opposite of the stressing end) and slide the chuck all the way up the strand until the chuck comes in contact with the abutment. When using anchor chucks on the dead end, it may be necessary to push the jaws back up into the chuck body. (See diagram 11).
Once the strand chucks are all in place, twist off the caps and make sure the jaw segments are all in line with each other. If a chuck is found with one or more jaws offset, pull the chuck off the strand. With the cap and spring in place, reset the chuck on the strand. Check the jaws again. If they continue to be offset, remove the chuck and check for any nicks, contamination, or excessive rust. If found, clean the strand off and repeat the procedure. If the jaws continue to be offset, replace the strand chuck. Now the stressing can begin. Remember to follow all the jack manufacturer's recommended instructions.

**Warning:** During the tensioning process, all unnecessary personnel should leave the stressing area. The persons operating the stressing jack should stay behind an approved barricade or cage. **Remember,** until the concrete is poured into that form, the bed should be treated like a loaded gun.

After the proper concrete curing has taken place, the form can be stripped. Before the concrete product can be removed, all of the strand chucks must be removed. This is known as detensioning. The most common method involves cutting the strand loose with a torch. Some forms are equipped with an open area at each end of the bed that is used when detensioning. (See diagram 12).
The detensioning area allows the cutting torch to reach that strand located between the chuck and the concrete. The concentrated heat will cause each strand to fail right where the heat is applied, much like what will happen if weld splatter comes in contact with strand under tension.

**CAUTION!** The torch operator must always wear eye protection.

Once the chuck has been cut loose, remove the chuck from the scrap strand and put it in a bucket or pail. Don't lay them on the ground. If the chuck is locked up on the strand, **DO NOT BEAT THE CHUCK.** Just put the chuck and the strand in the bucket and let the chuck maintenance person take care of it. All of the used chucks should be picked up and returned to the chuck maintenance area. Any chucks that are locked up on the strand should be placed in a vice and released using a chuck removal tool and sliding hammer. (See diagram 13).
Chapter 10
When To Reorder And How To Store Your Chucks

There is no chuck manufacturer out there that can accurately tell a customer how many uses they will get from a strand chuck or chuck components because of the many different variables such as the ones discussed in the previous chapters. However, it never fails that when a prestress plant runs out of something, the chuck maintenance person will try and make do by using worn-out components to get by. This is not recommended. By practicing the suggested procedures in this manual, the chuck maintenance person's job will be easier when it comes time to reorder more chucks or components. Remember, even if you place the order today, it might take up to a week before the parts are delivered. Or, they might be “out of stock”. Insist on having backup supplies on hand.

With the typical strand chuck, the retaining ring has to be replaced most often so always keep a good supply of retaining rings for every size chuck used. Next are jaws. Have at least one or two dozen new jaws for each size put away in case they are needed. Remember, if the correct procedures are not followed, a set of jaws could be ruined after just one use. Have plenty of springs on hand. They don't cost that much but without the springs, the cap doesn't work. Without the cap, the chuck doesn't work. Stashing a couple of dozen complete chucks is a good idea. Should you come up short, these can be entered into service at a moment's notice. Finally, try to keep a case of lubricant and a spare box of body and jaw brushes. Remember, if you can't clean or lubricate the chucks, you can't use the chucks.

Is that big job coming to a close and you need to store the chucks? Whether short or long term storage, the chucks should be cleaned and inspected. No sense storing damaged or worn-out chucks. Cleaning them now will be a lot easier than cleaning them later.

If storage is short term, go ahead and lubricate them and store them in a secure, dry place until needed. If the storage is long term, spray the chucks with a light oil or dip them in diesel fuel. This will help control any corrosion that might occur during storage. Now, box them up and store them in a dry, secure area or cabinet. Mark each box of chucks with the chuck size and what will need to be done before the chucks can go back into service.

Example: Brand name, 1/2" Multiple Use Chucks, clean and lubricate before use.

When the next job comes up, the person responsible for getting the chucks ready will know what needs to be done.
Problems And Solutions

Question 1: Some of your chucks, jaws and caps look different from the rest of your chucks?

Answer 1: Check the brand names and numbers on the components. If they are different, you may have two brands of chucks in your inventory.

Caution: Do not mix brands of chucks or parts. Stick with only one brand of chuck.

Answer 2: You may have two different sizes mixed together. Look for size markings.

Answer 3: If the parts are the same size and brand, call the manufacturer. There may have been a design change. Make sure the parts are compatible.

Question 2: Chucks or parts are delivered with a protective wax-like coating on them. Does this need to be cleaned off?

Answer: Yes. The coating is to protect against corrosion. Simply wipe the parts off with mineral spirits and then lubricate them.

Question 3: The chuck parts don't fit together very well?

Answer 1: Make sure they are the right size and brand.

Answer 2: Check the parts for damage. If damaged parts are found, replace them!

Question 4: Retaining rings keep breaking or shredding?

Answer 1: Are you using retaining rings that are meant for strand chucks?

Answer 2: Are you using the right size retaining rings?

Answer 3: Have the retaining rings come in contact with any solvents, thinners or flammable liquids? If so, replace the retaining rings.

Answer 4: Are the insides of the chuck bodies clean and smooth? If not, reclean them and do not leave any rough or uneven areas.

Answer 5: Are the chucks properly lubricated?
Problems And Solutions (continued)

Question 5: Strand chucks keep biting through the strand?

Answer 1: Check the load being placed upon the strand.

Answer 2: Check and see if the jaws are offset in the body where one or two jaws have moved up in the body ahead of the others. If this is the case, read question #6.

Answer 3: Check the jaws for the same brand and size.

Answer 4: Is the stressing jack shock loading the chucks by releasing the strand abruptly? Always follow the manufacturer's recommended operating procedures.

Question 6: Are the jaws becoming excessively offset during tensioning?

Answer 1: Make sure the insides of the chuck bodies are clean and smooth. Look at the jaws. They should be clean and smooth on the outside and teeth should be clean and sharp on the inside.

Answer 2: Make sure the chucks have been properly lubricated with an approved chuck lubricant and follow the manufacturer's directions.

Answer 3: Is the nose of the ram flat and smooth with no damage that could cause the ram to be off-center?

Answer 4: Are the strand chucks bearing flat against the abutment and is the abutment flat and free of damage where the chuck makes contact?

Answer 5: Check to see if the chuck box wear plate in the ram is worn or damaged. If it is, replace it.

Question 7: Is the strand slipping out of the splice chuck?

Answer 1: Make sure both splice chuck bodies are screwed all the way on the center coupler.

Answer 2: Check the ends of the strands for burrs or slag. If present, grind the ends smooth. Also, check the strand for heavy rust or contamination, clean if necessary.
Problems And Solutions (continued)

Answer 3: Make sure the strand bottoms out. Push the strand into the splice chuck until it hits the coupling inside. This is the only way to make sure the jaws are fully engaged.

Answer 4: Check the jaws inside. Make sure they are the right size.

Question 8: Your jaws have burn-through marks on the teeth where the strand has slipped through the jaws under tension erasing the teeth where they make contact with the strand?

Answer 1: Check the strand for surface contamination and clean it off.
Answer 2: The jaws may have contamination built up in the teeth.
Answer 3: The jaws may be worn out. Check the teeth for sharpness.
Answer 4: Check the jaws for correct brand and size.
Answer 5: Shock loading the chucks can cause the jaw teeth to burn through. Always follow the recommended stressing procedures.

NOTE: Never attempt to use jaws that have burned-through teeth. These are very dangerous and could cause serious injury.

Question 9: The strand chucks do not want to come off the strand after tensioning.

Answer 1: Check the jaws and bodies. They should be clean and free of buildup.
Answer 2: Chucks should be lubricated with only approved chuck lubrication according to the manufacturer's recommendations.
Answer 3: Are the chucks being reassembled before the lubricant has dried?
Answer 4: Check the strand ends for damage. If present, replace the damaged components and discard the old parts.
Answer 5: Are the components all the same brand and size?

Question 10: The tip of your jaws are cracking?

Answer 1: Check out the jaws to see if they are damaged or worn out.
Answer 2: Are the jaws the same brand and size?
Problems And Solutions (continued)

Answer 3: Are the stressing loads being placed on the strand excessive (over 80% of the ultimate strength of the strand)?

Answer 4: Are the jaws becoming excessively offset during stressing. If yes, then see question #6.

Question 11: The jaws are cracking transversely from left to right across the jaw?

Answer: Save the jaws and call the manufacturer.
Do not use jaws that have transverse cracking!
CLEANING YOUR JAW TEETH WILL INCREASE THE GRIPPING POWER OF YOUR CHUCKS!

HAVE YOU BRUSHED YOUR TEETH TODAY?
Ram Centering

If in doubt use a level and check your form and stressing plate then check your ram, both should be at a 90° angle. Left and right alignment should also be checked.

stressing begins.
crackling, excessive stressing loss and even strand failure. Ram alignment should be obtained before allowing the ram to center itself is detrimental to the performance of your strand chucks.
Everything Looks Good, Right?

Wrong!

Wrong

Wrong

Right

The prestressing strand must be inserted to the full depth in each side of the splice chuck coupling to be used safely.
TUMBLING CAN BE HAZARDOUS TO YOUR JAWS HEALTH!

UNLESS you use natural tumbling media such as pecan or walnut shell. Tumbling with hard man-made media like ceramic beads will wear your teeth down greatly reducing your ability to grip the strand.

ANOTHER SAFETY BULLETIN BY:

PRESTRESS SUPPLY INC.
1804 W. Lake Parker Drive • Lakeland, Florida 33805 • 863/683-4492
1-800-328-8036 • FLORIDA 1-800-282-7321 • Fax 863/683-2886
A SMOOTH MOVE!

When your strand chucks grip the strand, the jaws actually move inside the body. As your strand load is transferred through the chuck, the jaws slide up in the body, wedging the strand in place. If the inside surfaces of your chuck body are not smooth and free of debris and lubrication buildup, one or more of the jaws could get “hung up” in the body causing unequal jaw seating. This in turn could cause jaws to crack, reducing your Jaw’s life and could damage the strand resulting in strand failure.

Have your chuck maintenance personnel inspect the inside of the chuck bodies for “build up” and clean it out so the bodies are smooth again and your jaws can have a “Smooth Move”.

Another Safety Bulletin by

PRESTRESS SUPPLY INC.
kind to your chucks... use a chuck removal tool!

OTHER MANUFACTURERS' PARTS ARE NOT INTERCHANGEABLE WITH "PAUL" CHUCKS

OUCH!

Don't be a Chuck Beater

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