

Martin Pole & House Integrity: For the Safety of You and Your Martins

*Timothy Shaheen
15 Wigwam Road
Locust, NJ 07760*

Many times we do not take seriously the ability of our martin houses to stay up and do what we expect them to do. Until you have had a martin house come down on you, whether it hits you or not, the gravity of this possibility does not sink in. I have had three martin houses come down on me in the last three years and know of others who have had similar experiences. House/pole failures happen every year. I would like to share our failures with you. Some of them are strictly due to human error while some are possibly due to manufacturer negligence. The object of this article is for you to double check your martin housing to make sure nothing like this happens to you. Do not presume that just because your house hasn't fallen yet that it can't! The following stories are all true and each one has a moral to it to help you avoid making the same mistakes.

Denny's Winch Story:

"My first experience of the hazard involved using the wrong type came back in 2001 when I decided to become a landlord. I had purchased my first T-14 and was anxious to get it up for the coming season. I didn't order the winch kit with the automatic braking device because I had my own winch that I planned to use. Unfortunately, the winch I used did not have an auto brake on it. The dangerous and possibly life threatening experience I am about to describe was very real at the time and scared the HELL out of me. I was doing my routine nest check one day during



Tim Shaheen



Louise Chambers

Use your noggin: Make sure the safety pin is placed correctly, above head height, where it can protect you from equipment failures. Top photo shows a pin placed too low; bottom photo shows correct placement.

the middle of the season. I became distracted as I was raising the house and was watching the birds return to their perches. For just one moment, I let go of the handle when the house was about halfway up the pole, not realizing the locking mechanism was not engaging. The house came flying down the pole. I tried to grab the handle, but that only caused me to get hit on the hand by the rapidly rotating handle, which was now spinning out of control. In the next fragment of a second, one of the sections of the T-14 hit me on the head and knocked me to the ground. I was conscious and seeing stars, bleeding from the head and thought I was severely hurt. I later found a cut on my head about 1/2 inch long. I was lucky. My hand also had taken a beating by trying to grab the out of control handle. I lay on the ground for about 5 minutes until I could get my wits about me and get my wife to help me out."

Bill T's T-14 Story:

Bill, Denny's neighbor, built his own T-14 last winter. Unfortunately, he did not follow the recommendation in the plans for installing the cable and winch system. Bill attached the terminal end of the cable to the roof of one of the T-14 sections, using a screw eye. Bill overestimated the holding power of the screw eye. One day Bill was doing a nest check; when he was finished and started raising the house, the screw eye pulled out. What happened to Bill is very unfortunate. Bill had his hand on the safety bolt when the house crashed down. One

of Bill's fingers got completely crushed and required emergency treatment, followed up by a series of operations to reconstruct the bone.

The moral of this story is to follow the manufacturer's plans for installation of the winch system. Do not improvise unless you are upgrading from their specifications.

My Failed Brake Winch Story:

Three years ago I bought a T-14 and installed it in my backyard. I used a round galvanized pole and purchased the brake winch and related hardware from the PMCA. No martins used that house that year, but when I held a backyard martin workshop for a local chapter of the Audubon Society, the T-14 was lowered so attendees could inspect it. After the seminar was over, a friend and I went over to the T-14 to raise it back up. It was about 2/3 of the way up the pole when the house came crashing down. Fortunately, both me and my friend were quick enough to jump back before the house hit us. After we collected ourselves,

we discovered that the bolt that the spool spins on came loose. Somehow the nut had backed itself off and the bolt fell out of its hole on the nut end. This rendered the safety brake worthless and the cable and spool let loose. I do not know if this loose nut was my fault or the manufacturers' fault. I feel that it was most likely my fault. The bottom line is that it got loose somehow, and should have been tightened to prevent this accident. The moral here is to always spot check nuts to be sure they are tightened securely. This could have been a serious accident.

Bill P's Failed Lone Star Cable:

A friend of mine had purchased a Lone Star Alamo house. He had no martins through his second year of trying and I would occasionally stop by and check the house for house sparrows. I was raising the house after one of these checks and about halfway up the pole, the cable broke and the house crashed down into the winch (there was no safety bolt installed). The winch went right through the bottom of the house. The house just missed me as I was quick enough to jump back before it did. Upon inspection I found that the steel cable supplied with the house had frayed and broke where it attached to the bottom of the house. It frayed where it turned the corner from a horizontal position to where it goes up vertically between the house and pole. There is a sharp edge here on the bottom of

the house. On a Lone Star house that another neighbor has, I installed a piece of rubber between the cable and house to prevent the cable from getting cut on the same sharp edge. I do not know if this is a manufacturing defect that has since been addressed or if this was simply an error in assembly by the landlord. The moral here is that even a steel cable can break if subjected to a sharp edge and if you have a Lone Star house, be sure to check for this situation.

My Failed Rope Disaster:

There is a special concern for any landlords who make and/or design their own martin house. I made my own martin house two winters ago. I used white cedar, so it was much lighter than a T-14. I estimated the total weight with nest trays to be about 60 lbs. I felt that a good nylon rope [see recommendations on pg. 4] would work well and decided on the 3/8" diameter yellow rope used on many boat trailer winches. I felt that if it could handle the weight of a small outboard boat it could easily handle my martin house. The only thing

I did not consider was how the weather and sun would degrade the rope in a short period. It was my second season using this new house and the martins loved it. The house has 8 double-sized compartments with two SuperGourds hanging from it. I had 7 out of 8 compartments occupied with martin pairs, nests and eggs. I had casually noticed that the rope was beginning to look a little frayed and weathered but did not think it was in any way close to breaking. I had just finished a nest check and had the house about 1/3 of the way back up the pole when the rope broke. Of course I had a safety bolt installed, but my head was about 12" above the bolt at the time the house came crashing down. Fortunately, some of the jolt of the house coming down was absorbed by MY HEAD! This most likely saved some of the eggs from being ruined. Repair to the rope was not possible until the next day so I propped the house up about 1/4 of the way up the pole with a metal pole and fortunately, the martins returned to their nests. The next morning I was able to install new 3/16" steel aircraft cable on the winch and was able to get the house back into operation in about 1/2 hour. Two of the martin pairs ended up getting rid of their eggs which were most likely ruined in the fall and fortunately were able to renest successfully. The moral of this story is to not underestimate the weight and holding capacity of your winch system. Unless you are dealing with a lightweight metal house,



Tim Shaheen



Tim Shaheen

Check equipment each time you use it; examine ropes and cables for fraying, and make sure hardware is secure.

absorbed by MY HEAD! This most likely saved some of the eggs from being ruined. Repair to the rope was not possible until the next day so I propped the house up about 1/4 of the way up the pole with a metal pole and fortunately, the martins returned to their nests. The next morning I was able to install new 3/16" steel aircraft cable on the winch and was able to get the house back into operation in about 1/2 hour. Two of the martin pairs ended up getting rid of their eggs which were most likely ruined in the fall and fortunately were able to renest successfully. The moral of this story is to not underestimate the weight and holding capacity of your winch system. Unless you are dealing with a lightweight metal house,



Patrick Kramer



Patrick Kramer

Left: An offset winch bracket allows the landlord (Allen Jackson in this case) to raise and lower housing from the side, a much safer operating position than below a heavy house or gourd rack. Right: With rope & pulley systems, be sure to stand to one side, rather than directly below housing, to raise and lower housing.

steel cable is required to safely hold a heavy wood house. Sun and weather can rapidly degrade most rope, especially if left up year round. Of special note here for landlords who have had the *PMCA's* Deluxe Gourd Rack in use for more than a few years, the rope manufacturer suggests replacing the rope after 15-20 years, but it should be inspected and replaced whenever wear or fraying is detected.

If you notice, all the above house failures happened while the house was being raised from the lowered position. Obviously the pull of gravity when raising a house is enough to cause failures that may not happen while the house is stationary or being lowered.

A Solution: Offset Winch Design

Many landlords have been improvising and setting up their martin house winches so the landlord is not under the house while it is being lowered and raised. Landlord Terry Washburn of Arkansas has been promoting such designs and was the inspiration for the offset winch bracket shown above.

It is also wise to position yourself off to the side when raising and lowering your housing so that if there is a failure, the falling structure will miss you. And be sure to keep your hand off the safety bolt or the top of the winch! A hard hat might be a good accessory, too.

Equipment Recommendations for Do-it-Yourselfers:

Inspect all equipment at the end of the season. This will make it easier to replace or repair items, rather than discover, as the first martins of the year hover overhead, that the cable, rope, etc., are worn. Oil/lubricate hardware where needed.

Pulley: When using steel or galvanized cable, get a pulley that's made for cable rather than rope. If switching from rope to cable on a gourd rack, replace with correct pulley.

Eyebolts: Use 1/2" eyebolt with winch and cable, nothing smaller.

Winch: Use brake winches rather than non-brake winches.

Cable: Use 3/16-inch aircraft cable, galvanized or stainless, and use 3 clamps on galvanized cable, two on stainless.

Rope: Polyester rope or nylon rope, or a combination of the two, are the best choices for outdoor use. Both will last up to 20 years. Polyester rope is the best choice and easy to find. Nylon rope is not common; look for solid, braided 100% nylon—it will be white in color. Nylon has more stretch than polyester, so may require tightening due to stretching. Avoid polypropylene rope, often mistakenly referred to as nylon rope. It is usually yellow in color, and will last only two years when used outdoors.

Tim Shaheen is a mentor and bander in New Jersey. We're very glad he is a hard-headed Irishman!

