"Your Complete Source for Springboard and Platform Diving Equipment and Supplies"

SUGGESTIONS FOR REPLACING DURAFLEX SLIDE TRACKS

One of the more difficult equipment maintenance tasks on a Duraflex Diving Stand is to replace worn out slide tracks. The slide tracks are the long, black metal pieces on which the fulcrum moves ("slides") back and forth. There are two slide tracks per diving stand and each is attached to the stand box by five 5/16" x 1" aluminum hex-head bolts. The difficulty lies in first getting TO the slide tracks (i.e. removing the fulcrum assembly), and secondly removing the bolts that hold the slide track to the stand box.

TOOLS NEEDED: Safety goggles (for eye protection), 15/16" Box Wrench (for removing carriage bolts that hold diving board to hinges); 9/16" box wrench and 9/16" inch socket (for removing anti-rattle bolt / nut); ½ box wrench and ½" socket (for removing roller clamps, tie plate and eventually, the slide tracks themselves); PB Nut Buster (for spraying nuts and bolts in advance of the repair work to help loosen and remove them); a utility knife (for scraping away any paint or debris on the stand box once the slide tracks have been removed; and some old rags for general cleanup. We suggest that you replace all of the nuts and bolts that you remove when doing a repair of this nature. A list of the replacement part numbers and their descriptions can be found at the end of this information sheet.

New slide tracks are all black and shiny (as a result of the factory anodize process). This process adds 1/1000" thick coating to the slide track and makes the aluminum extremely hard and durable. It helps the roller block assemblies to more easily slide back and forth on them thousands and thousands of times. Eventually though, they will wear out and need to be replaced. Although worn out slide tracks are NOT really a safety issue, they should be replaced as part of a general equipment maintenance plan. This will help keep fulcrum assembly noise levels down and will allow the fulcrum to move back and forth with much greater ease. Coaches, divers and spectators will appreciate a fulcrum assembly that does not make a lot of noise and one that moves back and forth with ease – this helps practices and competitions run more quickly and efficiently.

WHAT TO LOOK FOR: Worn out slide tracks will either have "scratches" on the top and or sides (from improperly attached roller block assemblies) OR they will have a "bleached" look (caused by long periods of improper maintenance and / or weather / pool environment conditions).

NOTE: If you are NOT replacing the roller block assemblies or miscellaneous fulcrum "small" parts at the same time, it is possible to remove the complete fulcrum assembly simply by loosening the anti-rattle bolts and lifting the entire fulcrum assembly off the slide tracks. Once the slide tracks are replaced, simply re-attach the entire fulcrum assembly to the new slide tracks by tightening the anti rattle bolts to proper clearance. If this option is selected, you can then skip Step 3 – Step 5.

STEP I: Spray all nuts and bolts with PB Nut Buster upon your arrival at the job site. This will allow the product to soak in for a short while before you begin the actual removal process.

STEP 2: Remove diving board from hinges and dive stand – set aside where it will not be in the way or in a place where it will fall or be damaged. A 15/16" box wrench to is needed to accomplish this task.

STEP 3: Remove the roller clamps from the fulcrum assembly. (The roller clamps are the half-moon-shaped metal pieces that hold the fulcrum roller to the roller block assemblies). You will need a ½" wrench or socket to complete this task.

STEP 4: Remove the tie plate from the roller block assemblies. (The tie plate is the flat rectangular piece of metal that "ties" (holds) the two roller block assemblies together. CAUTION: These bolts are aluminum and if they have not been replaced in a while, some corrosion may have taken place. Often, as a result of this corrosion, the tie plate bolts will break in half when you are trying to remove them – a potential "knuckle-buster"! (The new tie plate bolts, nuts and washers are stainless steel and will not break during removal or tightening).

STEP 5: Remove roller block assemblies from the slide tracks by loosening the anti-rattle bolt and nut. You will need either two 9/16" wrenches or one wrench and one socket to accomplish this.

STEP 6: Remove slide tracks from the stand box. For this task, you will need a ½" wrench or socket. NOTE: There are five ½" hex-head bolts that hold the slide tracks to the stand box. The bolts have painted heads, which makes it somewhat difficult to get the wrench or socket over them. CAUTION: These bolts (just like the tie plate bolts) are aluminum and many times they have never been changed. Often corrosion has occurred between the bolts and the slide tracks, which can make their removal very difficult. You will often encounter slide track bolts that snap in half or the heads will strip when trying to remove them – making this a "knuckle-buster" task too.

If you are able to remove most of the slide track bolts, you can usually break any remaining bolts by using a wrench or vice-grip to lift up on the slide track until the bolt breaks.

If a slide track bolt breaks off but remains corroded in the hole of the stand box, you will need a ½" punch or similar item and a large hammer to remove it. In some rare instances, the bolt will need to be drilled out. Whichever method is used, please note that the diving stand and fulcrum box are made of cast aluminum and are quite strong but care should be exercised when removing broken or stripped bolts to limit the chance of damaging or cracking the fulcrum box.

STEP 7: Use a utility knife and some rags to clean the area where the slide tracks were. You might notice a "ridge" of paint that surrounds the area where the slide track was – do not scrape this away as it will help you line up the new slide tracks when you install them.

STEP 8: Set the new slide track on the stand box in the proper place. Please note that the holes on the underside of the slide track are slightly off-center and therefore, the slide tracks only fit one way. ***The "groove" seen on the bottom of the slide track should be facing the outside of the fulcrum box***. Insert a slide track bolt into the center hole and hand tighten. Next, insert a slide track bolt into each end hole and hand tighten. Finally, insert a slide track bolt into the remaining two holes and hand-tighten. Then, using a ½" wrench or socket, tighten each bolt to a "snug" fit in the same order you inserted them. If you tighten them too much, they could break.

STEP 9: Repeat the process for the other slide track. NOTE: The slide tracks should be parallel to each other along the entire length of the slide track. It is a good idea to confirm using a tape measure prior to final tightening of the slide track bolts. Measure from the outside edge of one slide track to the outside edge of the other slide track at both the front and back of the slide track. The correct measurement should be 18 inches (O.D. to O.D.)

STEP 10: Use the Duraflex "buff" color paint kit (Item MP105) to paint over the heads of the bolts you just installed. This helps to form a seal so water cannot get up into the holes and possibly cause corrosion.

STEP 11: Reinstall the roller block assemblies, tie plate, fulcrum roller and diving board. Adjust tightness of the anti-rattle bolts and roller clamp bolts for low noise level and ease of movement.

STEP 12: Apply Duraflex fulcrum grease (Item PM111) to roller block assemblies and slide tracks.

LIST OF REPLACEMENT PARTS NEEDED

SF122 – Stainless steel carriage bolts, washers and nuts for attaching diving board to hinges. (Two carriage bolts and nuts are required to attach diving board)

517 – Roller Block Assembly -- Includes (1) 515, (1) 516, 1 (518), 1 (521), 1 (524), 1 (528), 2 (526) and 2 (533). (Two roller block assemblies are needed per dive stand)

If purchasing parts individually:

515 – Rubber bumper (One needed per roller block assembly)
516 – Anti-rattle clamp (One needed per roller block assembly)
518 – Slide bearing (One needed per roller block assembly)
521 – Roller Clamp (One needed per roller block assembly)
522 – Tie plate (with four installation bolts, nuts and washers)
524 – Roller bearing (One needed per roller block assembly)
526 – Tie plate bolt, nut and washer (Two needed per roller block assembly)
528 – Anti-rattle bolt and nut (One needed per roller block assembly)
533 – Roller clamp bolt and nut (Two needed per roller block assembly)
C208A – Slide track with five installation bolts (Two needed for dive stand)
MP105 – Buff color paint kit and brush (One kit needed)
PM111 – Mystik J-6 Grease (One 3 oz. Tube needed)