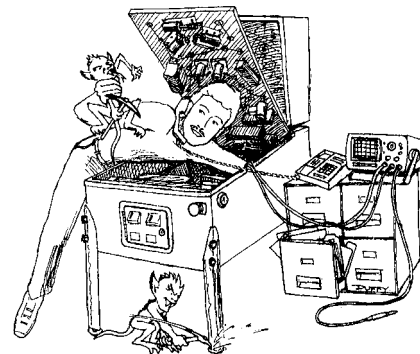




Nº 152 Service Bulletin



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TO: Parts & Service Managers

DATE: August 27, 2004

SUBJ: FYI: Stern Pinball Flipper Evolution

Updated 3 Flipper Parts:

We are constantly striving to improve the performance and reliability of our flippers and have made some minor, though important changes recently. **Three parts evolved:** 1. Plunger 2. Link 3. Switch Actuator & Spring Bracket

On the Plunger (1.), we have eliminated the 1/16" Flat (Ref. **A**) which was present on our *flipper plungers* for many years and have also increased the amount of material *at the end of the plunger* where the Link is attached by the Spiral Pin (Ref. **B**). You may have noticed on games since T3® Pinball* and *new replacement Plungers** (530-5349-01) from Parts Sales, that the plunger length has been reduced (Ref. **C**). *This was done to improve the players ability to make outside shots. The shorter plunger allows the flipper to have a longer stroke and more degrees of sweep. (*The new design was introduced in May 2003).*

The Plunger "Flipper" Link (2.), was modified in March 2002, to use one Metal Bushing *per side* (Ref. **D & E**) instead of the one older single bushing at the Crank Bar side (Ref. **E**) only (*the older design had the spiral pin directly press fit into the plastic link, which had a negative effect on the long term durability of the linkage assembly*).

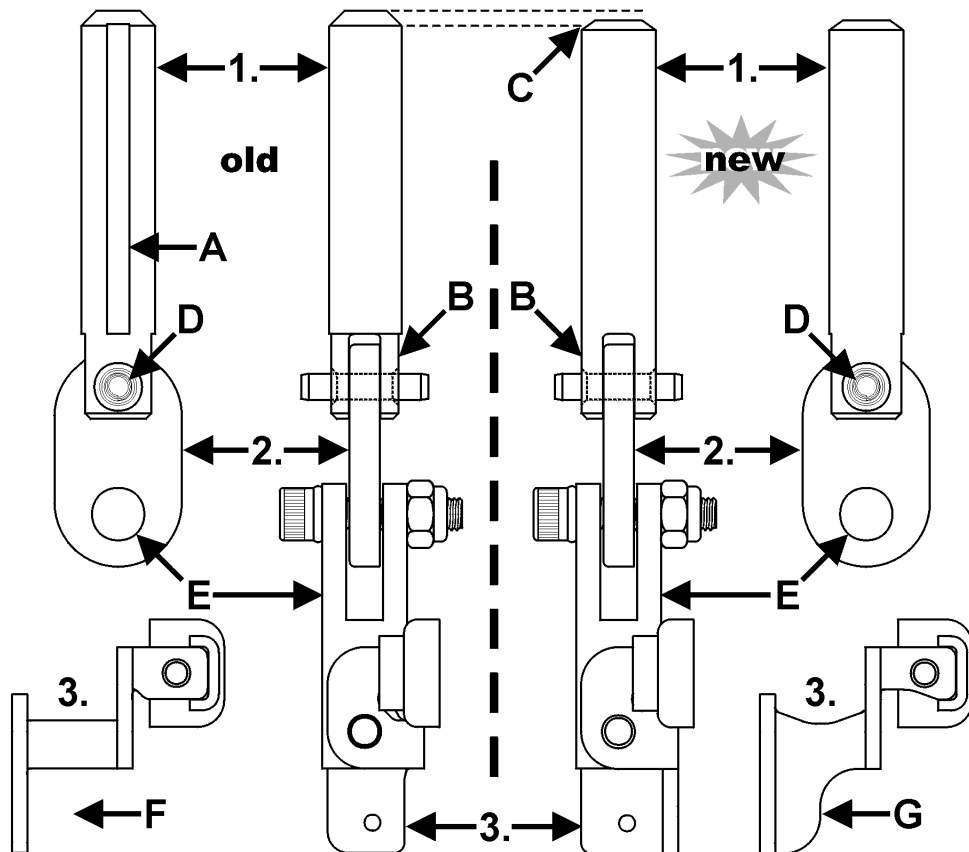
The Switch Actuator & Spring Bracket (3.) had more material added on the side to "beef it up" (Ref. **F & G**).

Stroke/Angular Rotation Data :

The new design gives us a stroke **.059" longer**, which translates into a **larger flipper angular rotation (3.86+ degrees)**. Meaning, the new design gives the Flipper Bat a Total Rotation of **51.259°**. The prior plunger design only allowed for a Total Rotation of 47.395°. *4 small degrees makes a big difference!*

Ordering Notes: All part numbers affected did not change to ensure older games will get the revised parts when ordered, if needed.

1. Plunger (530-5349-01) and
2. Link (545-5611-01) assembled, use **515-6304-03**.
3. Switch Actuator & Spring Bracket (535-9038-00 Right or -01 Left) & White Nylon Switch Actuator (545-5612-00) riveted on, use 515-7257-00 Right or -01 Left). For 1., 2. & 3. assembled (with securing hardware), use 515-7203-00 Right or -01 Left). These sub-assemblies can be used on **Flipper Assembly Families (Batman Forever Pinball through Current) : 500-5944-XX and 500-6543-XX (current)**. **Note:** Flipper Assemblies 500-6682-02 & -12 used on T3® Pinball, are identical to 500-6543-02 & -12 (can use either number).



Please phone or eMail with any questions or comments at the below numbers or address.

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