Group 58TC - Motor Base

Lanston Monotype-Thompson Type-Casters from s/n 10300 on were equipped with a revised motor mounting consisting of parts a58TC1 through a58TC16 (group symbol: Xa58TC). It was called a "Motor Base." This is the motor mount most common on surviving machines.

Lanston Monotype-Thompsons from s/n 10051 through 10299 were equipped with an earlier style of motor mount, termed a "Motor Stand" (p/n 58TC1 and 58TC2). It is likely that this Motor Stand is the style of motor mounting shown in the Lanston Monotype manuals (even through the 1956 edition of the manual, by which time it had been obsolete for decades). If so, then it is very much like the "Motor Bracket" mount shown in the 1925 Thompson Type Machine Company manual.

Pre-Lanston (that is, Thompson Type Machine Company) Thompsons appear to have had various motor arrangements. The 1925 Thompson manual describes a mounting system employing two "Motor Brackets." These would appear to be the same as (or very similar to) the Motor Stand (58TC1 / 58TC2) of the early Lanston machines. However, the 1925 manual does not call out a part number for these brackets, and indicates that they were supplied by the factory custom-fitted for each style of motor employed.

English Thompsons have entirely different motor/drive arrangements; these are neither called out in the Lanston parts lists nor illustrated here.

Xa58TC, Motor Base, Overall Views:

The Motor Base consists of two major components, the Base itself (a58TC1) and a Bracket (a58TC10) on which the Base pivots. The Bracket is affixed to the inside of the machine's Base (a1TC1T). It is secured by a system of four bolts which, together with a sort of a "tab" or projection (unnamed in the parts lists) serve to allow the adjustment of the degree of perpendicularity of the Bracket to the Friction Plate (17TC1T). The Motor Base pivots on the Bracket and adjusts the radial distance of the of the Motor Pinion (59TC2) to the center of the Friction Plate. It is shown below with the motor removed.



Fig. 1: Motor Base, Overall

Here is a view of the back of the Motor Base and Bracket, assembled. It shows the two holes in the Bracket for Motor Base Bracket Bolts (a58TC12). On the Bracket, it also shows the "tab" (not an official Monotype term) which bears against the side of the machine Base, and the two "pads" (also not official Monotype terms) upon which the two Bracket Adjusting Screws (a58TC11) bear. The two Bolts pull the Bracket tight against the machine Base, while the "tab" and the two Adjusting Screws bearing on their "pads" hold it away from the base and allow the adjustment of its horizontal orientation.

The Motor Base Adjusting Screw (lower) (a58TC5) pulls the bottom of the pivoted Motor Base tight against the machine Base, while the Motor Base Adjusting Screw (upper) (a58TC3, not shown here) pushes it away from the machine Base to achieve the desired angle.



Fig. 2: Motor Base and Bracket, assembled

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Here are the six securing and adjusting bolts as seen from the outside.



Fig. 3: Motor Base and Bracket, securing bolts and adjusting screws.

In the illustration above, the Stop Motion group (Xa84TC) and the Clutch-Shifter-Rod Latch (Xa11TC) have been removed.

Xa58TC, Motor Base, Individual Parts:

a58TC1, Motor Base



Fig. 4: a58TC1 - Motor Base

a58TC2 [NOT ASSIGNED]

a58TC3 - Motor Base Adjusting Screw (upper)

This is a bolt of Classification No. 158.

On Thompson s/n 12,492, this is threaded 3/8-16 UNC, with a hex head for a 9/16" wrench. This may be an incorrect part, since one would expect a 5/8 inch head here to match the lock nut a58TC4. The bolt on this machine has a working length of 2 1/2", with no shoulder.

a58TC4 - Motor Base Adjusting Screw Lock Nut

This is a nut of Classification No. 319

On Thompson s/n 12,492, this nut is threaded 3/8-16 UNC, with a hex head for a 5/8" wrench.

a58TC5 - Motor Base Adjusting Screw (lower)



Fig. 5:

On Thompson s/n 12,492, the thread

on this screw is 3/8-16 UNC.

a58TC6 - Motor Base Adjusting Screw pin



Fig. 6: a58TC6 - Motor Base Adjusting Screw Pin

The illustration shows this pin (which is just a short shaft) in place pivoting the Motor Base Adjusting Screw (lower) (a58TC5) between two projecting tabs on the Motor Base (a58TC1). It is secured by two cotters (a58TC7, see below).

a58TC7 - Motor Base Adjusting Screw Pin Cotter (2)

See illustration for a58TC6, above.

This is a cotter of Classification No. 91.

a58TC8 - Motor Base Adjusting Screw Nut

This nut fits on the Motor Base Adjusting Screw (lower) (a58TC5). See Figure 3, above (the external view of the securing bolts and adjusting screws).

This is a nut of Classification No. 319.

On Thompson s/n 12,492, this nut is threaded 3/8-16 UNC.

a58TC9 - Motor Base Adjusting Screw Lock Nut

This nut fits on the Motor Base Adjusting Screw (lower) (a58TC5). See Figure 3, above (the external view of the securing bolts and adjusting screws).

This is a nut of Classification No. 319.

On Thompson s/n 12,492, this nut is missing (but would have been threaded 3/8-16 UNC.

a58tC10 - Motor Base Bracket



Fig. 7: a58TC10 - Motor Base Bracket, front



Fig. 8: a58TC10 - Motor Base Bracket, back

a58tC11 - Motor Base Bracket Adjusting Screw (2)

This is a bolt of Classification No. 157.

On Thompson s/n 12,492, this bolt is threaded 3/8-16 UNC, with a hex head taking a 5/8" wrench. It has a working length of 3/4 " with no shoulder.

a58TC12 - Motor Base Bracket Bolt (2)

On Thompson s/n 12,492, this bolt is threaded 3/8-16 UNC, with a hex head taking a 5/8" wrench. It is likely that this machine is equipped with an incorrect part here, though, since the working length of this bolt (1 1/4 ", with a 7/8" shoulder) is too long.

This is a bolt of Classification No. 15.

<u>a58TC13 - Motor Base Bracket Hinge Pin</u>



Fig. 9: a58TC13 Motor Base Bracket Hinge Pin

This pin is simply a 1/2 inch diameter shaft drilled at each end for a cotter. As shown above, it has one incomplete cotter visible on the left; in service, two complete cotters should of course be used.

a58TC14 - Motor Base Bracket Hinge Pin Cotter (2)

This is a cotter of Classification No. 91.

<u>a58TC15 - Motor Bolt (4)</u>

In practice, these bolts probably vary considerably from machine to machine.

On Thompson s/n 12,492, these bolts are 5/16-18 UNC with hex heads for a 1/2" wrench, 1 1/8" long with a 3/8" shoulder. This machine is presently fitted with a NEMA 56 frame motor, but the Motor Base is drilled for several motor mounting bolt configurations.

Officially, this is a bolt of Classification No. 111.

a58TC16 - Motor Bolt Nut (4)

This is a nut of Classification No. 314.

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