

LANDIS MODEL 30 LEATHER SPLITTER

OPERATING INSTRUCTIONS - SET UP & MAINTENANCE

Anyone familiar with the correct setting of the Landis Model 30 machines should experience few difficulties setting or aligning different makes/models stationary knife Splitters. Most other makes and models use an entirely different knife edge (sharpening) angle, and the specific knife edge (sharpening) angle for each machine make, has to be maintained.

OILING

Before using a Splitter all the bearings should be oiled and, in addition, some oil may be brushed on the teeth of the Splitter gears as proper lubrication is very important and necessary to prevent undue wear of moving parts. The various parts for oil to apply has been indicated on the oil chart. Note there are four bearing blocks, two at the left side of the frame and two at the right side. These bearing blocks support the top and bottom rolls. On the left side blocks you will find holes for oiling at the top of the block close to the edge. The oil holes on the right side bearing blocks are also at the top of the blocks and close to the body of the roll and these oil holes are reached from the inside of the frame. In addition, you will find four oil holes at the right side of the frame, three of them in the lower roll pivot plate, reference #33, and one in the end of the stud which journals the intermediate driving gear, reference #56. The oil holes in the pivot plate are, one at the pivot stud, two at the bearing of the hand crank shaft and the other at the bearing for the lower roll extension shaft.

GAUGING THICKNESS OF WORK

On the front of the Splitter you will note the Gauge Plate, ref. #6, which is graduated from 0 to 15. These graduation marks indicate the thickness of the work in irons that will be produced when feeding the Leather through the Splitter.

IN LEATHER THICKNESS MEASUREMENTS THERE ARE 48 IRONS PER INCH

Since 15 iron equal 5/16 inch thickness, being the heaviest work that can be handled on a model 30 Splitter. The upper roll of the Splitter is adjusted for various thicknesses of work by moving the adjusting bar operating lever, ref. #14, to the thickness required. This lever has an indicator pin which points to the gauge scale and a plunger, ref. #15, which engages a ratchet plate to hold the lever in set position. To move the lever the adjusting bar indicator plunger is first pulled out so as to disengage the ratchet teeth.

The consistency of leather affects the accuracy of splitting and a slight difference in thickness may be expected when splitting hard and soft leather at the same gauge setting. When leveling a pair of soles, it is the usual practice to take the thinner sole, place it in the Splitter overlapping the knife, bring down the top roll with moderate pressure on the sole and then feed the sole through the machine. The heavier to be leveled sole is now fed through the machine at the same setting and the thickness will be approximately the same on both soles.

SETTING THE KNIFE

When setting the knife, make sure that there is no dirt on the bracket to which it is clamped. Raise the top roll as high as possible: set the knife against the stops provided for locating it, one at each side of the machine on the lower roll bearings as shown on the sectional view. Hold the knife against these stops and then bring up the two knife backing screws, ref. #78, against the back of the knife and then back off slightly so that the knife will not be jammed against the stops - for leveling soles only, the best setting for the knife is to back up the screws, ref. #78, 1-1/2 to 2 turns.

Many older machines have badly worn knife stops, also often the very corners of the knife that pushes against the knife stop, has a break out. This kind of knife should be discarded and replaced with a new or good reground knife. If the knife stops are worn and not smooth and even for a replacement knife to align correctly then align the knife as straight and even as possible without pressing into the worn part of the knife stops.

The knife is securely clamped with the knife clamp retaining screws, ref. #82, and the round head center knife retaining screw, ref. #81. The setting of the knife in relation to the center line of the rollers is very important and for this reason the stops on the lower roll bearings were provided and the knife so positioned will work satisfactorily provided the knife is sharpened at the correct angle.

OTHER ADJUSTMENTS

The two screws seen on top of the machine are to adjust the thickness adjusting bar, ref. #20, so that the top roll is parallel to the knife. These screws are set at the factory and locked so that when the upper roll is set for thickness of 6 irons, a gauge 1/8 inch thick will pass between the roller and the edge of the knife.

There is very little wear on the adjusting parts and this factory setting of the screws to position the upper roller SHOULD NOT be disturbed. The pressure springs, ref. #46, are properly set at the factory; pressure may be increased or decreased by using the adjusting screws, ref. #48, to meet any special conditions in the hardness of the stock that may arise. These springs are adjusted with ample pressure to feed hard stock. The check nuts, ref. #51, just above each spring, are used to set the bottom roll. The bottom roll should be set so that there is a space between the roll and the underside of the knife about 1/64 inch or the thickness of a business card. There should be no occasion to disturb this adjustment.

DO NOT SPLIT "DRIPPING WET LEATHER"

Your machine will look better, last longer and the keen edge of the knife will not corrode and become dull from acids in the leather.

CARE OF THE KNIFE - KEEP THE KNIFE SHARP & FREE OF NICKS TO OBTAIN BEST POSSIBLE RESULTS

This is very important as the Splitter belongs to that class of cutting, reducing/splitting machines that require a keen knife ground to the correct angle and properly set to do good work. When the knife becomes dull, the work begins to "wedge" or "ride over" the knife and you will not be able to take a shaving/splitting cut. Also the work will not be even and will vary in thickness. A dull knife may be sharpened by stoning (good quality oil stone is preferred).

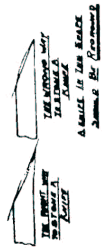
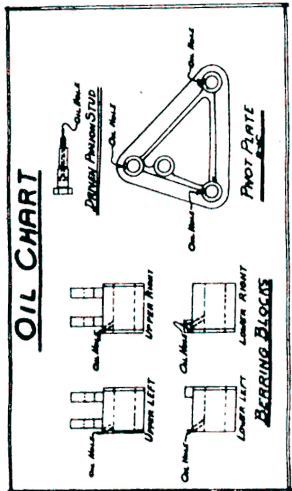
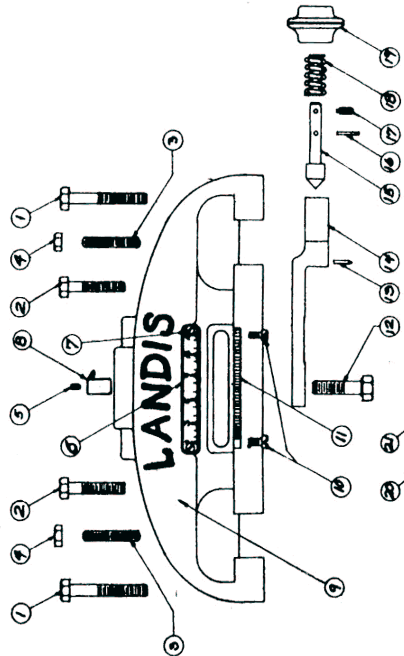
To remove the knife, loosen the clamp screw, ref. #82, and the center knife retaining screw, ref. #81; NEVER loosen the knife bracket screws, ref. #76, as these screws fasten the bracket and knife to the "frame and it is not necessary nor advisable to remove them. When stoning the knife, use a medium grained oil stone or hone. The bevel of the knife is hollow ground on the order of a razor and it is stoned the same way. The stone is held flat against the bevel, touching at the same time both the cutting edge of the knife and the extreme top of the bevel. The edge is stoned on a straight line between these points as shown in the illustration indicating the right way and the wrong way to stone a knife. Do not attempt to sharpen the knife in a hurry or take out nicks by tilting the stone up; this may give you a keen edge, but the edge will not last, in fact it makes the knife blunt, changing the cutting angle. This necessitates setting the knife further from the knife stops and the work will vary in thickness. No stoning is done on the flat side of the knife. The wire edge (burr) which will form on the flat side when stoning the bevel must be removed with the stone or better yet with a ceramic knife edge hone.

NICKING

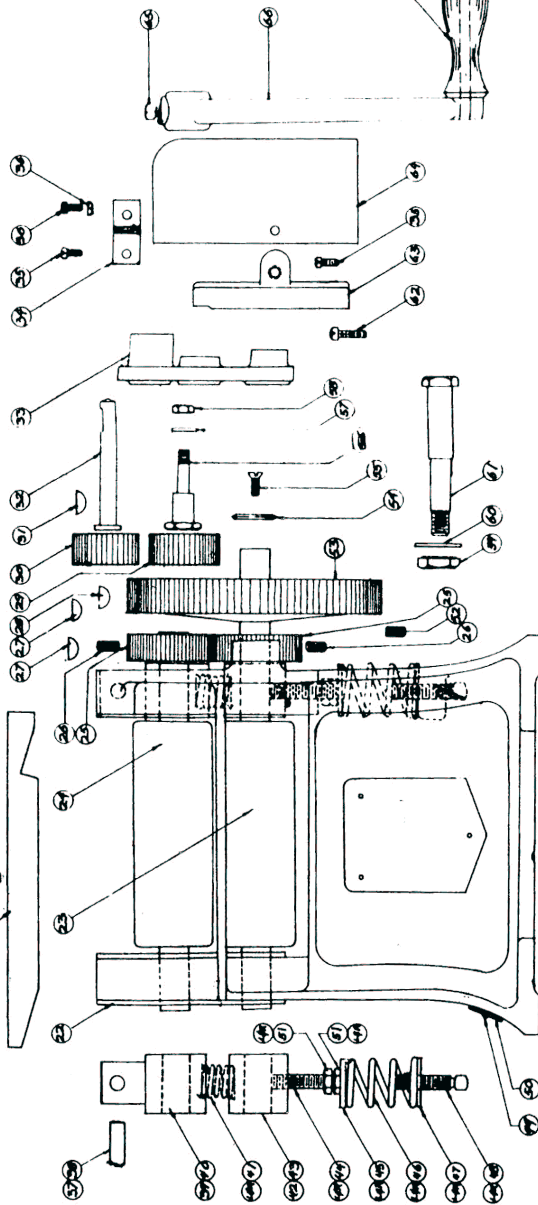
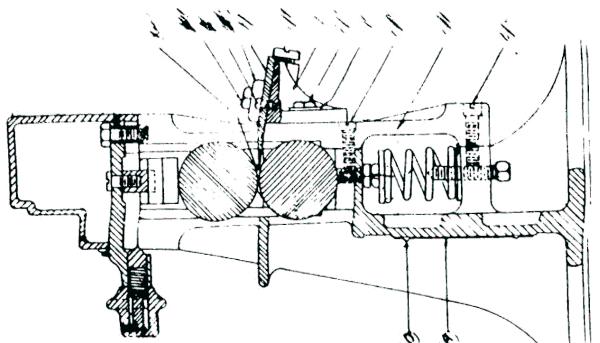
The knife may become nicked through carelessness due to splitting material with nails or because the knife has become dull and the feeding pressure had wedged it against the feed roll. In either case the knife should be reground, as it is impractical to stone it. This grinding should be done in a machine by an experienced operator for this class of grinding, or it may be returned to various machine parts suppliers for an "EXCHANGE KNIFE", provided the length of the knife satisfactory from the back edge to the depth of the nicks is at least 2-11/16 inches long. After the knife is worn so that the length is less than 2-11/16 inches, then it is not long enough to provide the necessary adjustment with the back-up screws.

The basic pointers and adjustments outlined are strictly for the original Landis Model 30 Splitter, of course it relates to the working principals of other makes and models. However the Landis model 30 knife edge and its sharpening requirements differs to a great extent from all other makes and models, except American and Champion 6" Splitters. USMC (RepcO), Rodi and various Splitters of European origin use a knife ground at a different angle, so it is not advisable to try to interchange with a Landis 30 Splitter knife.

LEATHER SPLITTER MODEL "30"



SECTIONAL VIEW, THRU
CENTER OF MACHINE.



CATALOG ASSEMBLY OF MODEL "30" LEATHER SPLITTER

Ref. No.	Name of Part	Part No.	Name of Part	Part No.
1	Cap Retaining Screw for Leather Splitter (rear)	D-302A	Lower Bearing (Right Hand)	D-14A
2	Cap Retaining Screw for Leather Splitter (front)	D-302B	Lower Spring Stud	D-301
3	Thickness Adjusting Bar Adjusting Screw	D-310A	Lower Spring Retaining Washer	D-601
4	Thickness Adjusting Bar Adjusting Screw Nut	D-310B	Lower Spring	D-701
5	Adjusting Bar Operating Lever Stud Retaining Screw	D-302C	Lower Spring Retaining Washer	D-601
6	Gage Plate	D-902	Lower Spring Screw	D-301
7	Gage Plate Retaining Screw	D-402	Serial Number Name Plate Fastening Screws	D-308A
8	Brass Plug for Adjusting Bar Operating Stud Retaining Screw	D-502A	Serial Number Name Plate	D-904
9	Cap	D-2A	Lower Spring Stud Check Nut	D-301A
10	Indicator Plate Retaining Screws	D-302E	Gear Set Screw	D-305
11	Indicator Ratchet Plate	D-2E	Gear	D-5
12	Adjusting Bar Operating Lever Stud	D-202	Lower Roller Washer	D-111A
13	Indicator Pin	D-502	Lower Roller Screw	D-311A
14	Adjusting Bar Operating Lever	D-2B	Driven Pinion Stud	D-217
15	Adjusting Bar Indicator Plunger	D-2D	Driven Pinion Stud Washer	D-117
16	Adjusting Bar Indicator Plunger Locating Pin	D-502D	Driven Pinion Stud Nut	D-317A
17	Indicator Knob Set Screw	D-302F	Pivot Plate Stud Nut	D-301D
18	Indicator Plunger Spring	D-702	Pivot Plate Stud Washer	D-101
19	Indicator Knob	D-2C	Pivot Plate Stud	D-201A
20	Thickness Adjusting Bar	D-10A	Guard Bracket Screw	D-301E
21	Thickness Adjusting Bar Operating Stud	D-210	Gear Guard Bracket	D-1E
22	Body	D-1N	Gear Guard	D-1F
23	Lower Roller	D-11A	Crank Set Screw	D-306
24	Upper Roller	D-10B	Crank	D-6
25	Adjustable Gears	D-16	Crank Handle	D-306
26	Adjustable Gear Set Screw	D-316	Crank Handle Stud	D-206
27	Key for Adjustable Gears	D-916	Name Plate	D-903
28	Key for Gear	D-905	Name Plate Fastening Screws	D-308B
29	Idle Gear	D-17A	Bearing Guide Bracket (Lower) Retaining Screw	D-301C
30	Pinion	D-17	Bearing Guide Bracket (Left Hand)	D-1B
31	Key for Pinion	D-917	Bearing Guide Bracket (Right Hand)	D-1A
32	Drive Pinion Stud	D-217A	Bearing Guide Bracket (Upper) Retaining Screw	D-301B
33	Lower Roll Pivot Plate	D-1C	Knife Bracket Screw Washer	D-103
34	Gear Guard Retaining Bracket	D-601F	Knife Bracket	D-303
35	Guard Screws	D-301F	Knife Backing Screw	D-3A
36	Guard Retaining Bracket Bolt	D-301M	Knife	D-309A
37	Upper Bearing Adjusting Bar Pin (Left Hand)	D-507	Knife Clamp	D-9
38	Upper Bearing Adjusting Bar Pin (Right Hand)	D-507	Knife Retaining Screw	D-8
39	Upper Bearing Block (Left Hand)	D-7L	Knife Clamp Retaining Screw	D-309
40	Upper Bearing Block (Right Hand)	D-7R	Frame Fastening Screws (Not Shown)	D-308
41	Upper Spring	D-701B	Frame Fastening Screw Washers (Not Shown)	D-301G
42	Lower Bearing (Left Hand)	D-12B		D-10LG