ACCESSORIES

DOUBLE DISK KIT 90195

Stack two disks to not only double the capacity, but enable adjustment as fine as .1 to .2 grain. Over 13,000 loads easily calculated from the expanded selection chart on reverse. Kit includes set of 4 extra disks, 2 hopper risers and screws.

### INSTRUCTIONS FOR INSTALLATION OF THE DOUBLE DISK KIT

1 Install the spacers between the hopper and casting as shown above, using the longer screws provided.

2 Now you can install two (2) disks at a time. If using different size cavities, **always be certain the smaller cavity is on the top next to the hopper**. Otherwise, the smaller hole will have a ledge to retain some of the powder.

> **CAUTION** Never use cavities with great difference in size as some of the powder could leak past the cavity into the center opening of the disk. This will cause an overcharge. The safe combinations are listed on the schedule.

3 Check and double check that you have the correct cavities in place.

4 Weigh your charge to be sure.
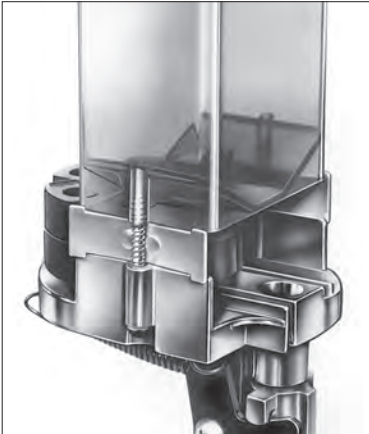
LEE SAFETY POWDER SCALE 90681
Magnetically damped and approach · to · weight

Safety and accuracy are the most important features. Easy to read and set. Calibrated with weights traceable to the UNITED STATES BUREAU OF STANDARDS. Even if you already own a combination bullet and powder scale, you will want a Lee Safety Powder Scale.

RIFLE CHARGING DIE

90194

Use the Auto-Disk Powder Measure to load your rifle cartridges with this Rifle Charging Die. Fits all calibers from the 22 Hornet through the 308 Winchester. Exclusive, tapered drop tube speeds even large charges through the .22 caliber orifice, without bridging.

MICROMETER ADJUSTABLE CHARGE BAR 90792

A superior and affordable adjustable charge bar. Infinitely adjustable between .28 cc and 1.6 cc. Great for load development or precise charges. Lifetime nylon with solid brass, zero backlash micrometer.
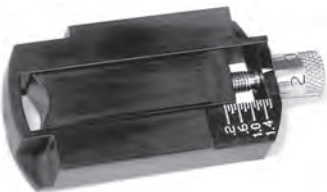
CAUTION Ammunition reloading can be dangerous if done improperly and should not be attempted by persons not willing and able to read and follow instructions exactly. Children should not be permitted to reload ammunition without strict parental supervision. Always wear safety glasses when reloading and shooting. Ammunition loaded with these tools and data should only be used in modern guns in good condition. We do not accept responsibility for ammunition loaded with these tools or data as we have no control over the manufacture and storage of components or the loading procedure and techniques. Primers and gun powders, like gasoline and matches, can be dangerous if improperly handled or misused.

IT IS YOUR RESPONSIBILITY TO ENSURE THE SAFETY OF YOUR LOADS

Listed below are some of the factors that will help keep you out of trouble. Some are obvious, but worth repeating.

Empty the hopper when not in use. Always return the unused powder to the original container for storage. With the Lee Turret Press, simply remove the entire turret and pour the powder from the hopper.

To prevent double charges, be sure to cycle the press only once. If in doubt, empty the case and do it again. A double charge is almost always a sufficient overload to blow up the gun and possibly injure the shooter.

Do not use for black powder. Black powder is an explosive.

Do not smoke or handle powder near an open flame.

Check to be sure the correct cavity is in place.

Check to be sure the correct powder is being used for the bullet weight and cartridge selected.

Check to be sure all the powder has cleared the drop tube.

The following are factors that will increase pressures. Some will be dangerous.

Do not use more powder than recommended.

Do not use a heavier bullet than recommended.

Do not seat the bullet deeper than normal.

Do not use magnum primers unless using a slow burning ball powder.

Greatly oversize bullets, excessively hard bullets or cases that are too long will cause higher pressures.

High temperatures or cartridges that were stored in a hot car or trunk will produce higher pressures.

PARTS LIST

Swivel Actuator	AD1210	Elastomer Wiper	AD3396
Knurled Adapter	AD3405	6–32 x 1⅛ Screws	FA3407
Actuator Lock	AD1449	Brass Hopper Nuts [set/2]	AD3397
'O' Ring ⁹⁄₁₆ x .070	QD2949	Bushing	BM1173
Pull Back Lever	AD3285	Screw	FB1171
Bead Chain & Fittings	AO1688	Charge Disks [Set of 4]	AD2310E
Spring Return Lever	AD2309	Charge Disk A	AD2310A
Spring	AD2296	Charge Disk B	AD2310B
Teflon Coated Body	AD2658	Charge Disk C	AD2310C
Hopper with Cover	AP1646	Charge Disk D	AD2310D
Hopper Valve	AD1509		

Guarantee

LEE RELOADING PRODUCTS are guaranteed not to wear out or break from normal use for two full years or they will be repaired or replaced at no charge if returned to the factory. Any Lee product of current manufacture, regardless of age or condition, will be reconditioned to new, including a new guarantee, if returned to the factory with payment equal to half the current retail price.

LEE PRO AUTO-DISK POWDER MEASURE
COMPLETE INSTRUCTIONS

Your new Pro Auto Disk incorporates all of the most requested features. Teflon coated body, large capacity, quick-change hopper with shut-off valve, easy-on swivel actuator, elastomer wiper and positive pull back lever all combine to make this the best powder measure money can buy. The case itself actuates the measure while the neck is being flared. The powder measure is actuated during the presses greatest mechanical advantage. This insures a smooth, even action of the measure. The elastomer wiper reduces powder leakage and prevents granule shearing. Super slippery teflon coated is wear resistant and reduces friction between the disk and body. The swivel adapter and quick change hopper make the Pro Auto-Disk unmatched in convenience.

ASSEMBLY Install your Lee Powder-Through-Expanding Die in your press as directed in the die instructions. Remove the powder funnel adapter and screw the Pro Auto-Disk in its place by simply turning the knurled adapter finger tight. The powder measure can be installed in any position. *BE CERTAIN lock and "O" ring are installed.*

Attach bead chain to shell plate carrier as directed in the press instructions. Loop free end of bead chain [Fig. 1] through the pull back lever as shown. **NOTE** If you are installing your measure on a single station or turret type press, install spring return lever and spring.

AP1646 HOPPER AND COVER

NOTE HOPPER MUST BE INSTALLED TO ALLOW CLEAR VIEW OF DROP TUBE

AD1509 HOPPER VALVE

FA3407 6-32 x 1⅛

A	AD2310A	.30—.43 cc	
B	AD2310B	.43—.66 cc	CHARGE
C	AD2310C	.71—1.02 cc	DISK
D	AD2310D	1.09—1.57 cc	

AD3397 BRASS HOPPER NUT

BM1173 BUSHING
FB1171 SCREW

AD3285 PULLBACK LEVER

AO1688 BEAD CHAIN

AD3396 ELASTOMER WIPER NOT VISIBLE

AO2658 TEFLON COATED BODY

AD1210 SWIVEL ACTUATOR

AD3405 KNURLED ADAPTER

AD2949 O-RING NOT VISIBLE

AD1449 ACTUATOR LOCK

AD2296 SPRING

FIG 1

AD2309 SPRING RETURN LEVER

SPRING LEVER FOR NON-PROGRESSIVE PRESSES

If your measure was shipped as part of a Turret Press Kit, it comes with the spring return lever and spring only. If your measure was shipped as part of a Progressive Press Kit, it would include the bead chain return system only. If your measure was shipped as a single product, it would contain both systems.
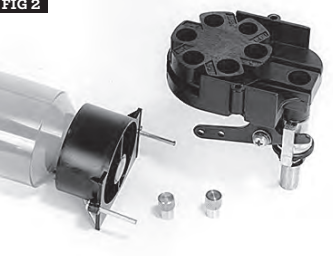
Photos illustrate typical chain attachment on Lee Progressive Presses. Installation on other brands require some ingenuity on your part to find a good attachment.

CHANGING DISKS

Remove brass hopper nuts and remove hopper. Install correct disk; [fig. 2] the proper cavity number should be directly above the return lever. Reinstall hopper. **Be certain the hopper is installed to allow clear view of the drop tube.**

Hint: [fig. 3] If you are using the positive pull back lever, you can change disks without removing the hopper. Simply slacken the bead chain and push the disk through the front of the measure.

FIG 2

FIG 3

CAUTION Be sure you have the correct cavity for the powder, bullet and cartridge selected. The wrong one might give a dangerous charge that could damage the gun and seriously injure the shooter.

WARNING Exercise extreme caution to ensure you do not cycle the measure more than once on each case. If in doubt, remove the case and empty the powder into the hopper. Frequently look through the drop tube to confirm all powder has cleared.

This chart is a guide to determine the APPROXIMATE CAPACITY of all popular brands for each cavity. Actual charges may vary due to manufacturing tolerances of the cavities, powder and method of use. These charges are not safe to use for maximum loads without first checking them on a scale. Most of these loads are unusable for many cartridges. However, by not eliminating them at an arbitrary point, no mistaken inference of usable range could be concluded.

Charge in grains x VMD Factor = Volume CC

Volume CC = Bottom Disk + Top Disk

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LEE PRECISION INC. 4275 Hwy. U Hartford Wi. 53027

The main charge chart is organized by powder manufacturer. Each powder has a VMD value followed by the approximate charge (in grains) for each disk cavity size. The cavity-size column headers across the chart are:

VMD · .30 · .32 · .34 · .37 · .40 · .43 · .46 · .49 · .53 · .57 · .61 · .66 · .71 · .76 · .82 · .88 · .95 · 1.02 · 1.09 · 1.18 · 1.26 · 1.36 · 1.46 · 1.57

ACCURATE: A NITRO100, ACCUR #2, ACCUR #5, ACCUR #7, ACCUR #9, ACCUR 1680, A-XMR-2015, ACCUR 2230, PEARL SCOT, ROYAL SCOT, SOLO 1000, SOLO 1500

ALLIANT: BULLSEYE, POWER PISTOL, RED DOT, GREEN DOT, BLUE DOT, AMER-SELECT, UNIQUE, HERCO, HERC 2400, RELODER 7, RELODER12, ALLIANT STEEL

HODGDON: HS6, HS7, H110, H4227, H4198, HP38, CLAYS, INTERNATIONAL, UNIVERSAL, TITEGROUP, TITEWAD, H4895, BL-C(2), H335

IMR: IMR 700X, IMR PB, SR4756, SR4759, IMR4227, IMR4198, IMR3031, IMR4064, IMR4895, IMR4320, SR7625, IMR 800X, IMR TRAIL BOSS

MULWEX: AS60, AR2205, AR2206, AR2207, AR2208, AR2209

VECTAN: VEC SP9, VEC SP10, VEC SP3, VEC SP7, VEC SP8, VEC TU2000

VIHTAVUORI: v-N310, v-N320, v-N330, v-N340, v-N37, v-N350, v-N110, v-N120, v-N130, v-N133, v-N135

WINCHESTER: WIN 231, WIN ACTION PI, WIN AA PLUS, WIN 296, wSUPER-LIT, wSUPER-TAR, wSUPER-FLD, WIN 540, WIN 571, WIN 748, AUTOCOMP

Note Coarse flake powder, such as Red Dot and Green Dot, can give light charges in the smaller cavities. (.40 or smaller).

Weighing Charges Maximum Loads Must Be Weighed
If you check charges on a scale, be sure to take one out of a normal loading sequence. This is especially important when the measure is used on a Turret Press as the powder packs in during the other loading operations.
Powder densities can vary more than 16% and still be considered within tolerance by the powder manufacturer.

For safety reasons, you will frequently find charges less than those listed on the charge chart. However, should you find one that is 5% more than the listed load we would like to know about it.

Volumes of Two Disks Stacked
Below are a few of the practical combinations of cavities. Caution: Some combinations are not listed because great size differences can be dangerous if the powder leaks past the metering cavity into the disk's center.

1 Select the charge in grains you desire to use from reliable load data.
2 Find the VOLUME IN CC by multiplying the CHARGE IN GRAINS times the VMD FACTOR. (Volume Measuring Density). Find VMD in column two next to POWDER TYPE.
3 Find the nearest VOLUME IN CC on the chart above. Next to it are the disks you should use. Moving up or down one line will change the charge only 1 or 2 grains.
4 Weigh your charge and adjust to suit.