ROSBACK

PRINTERS AND BOOKBINDER'S MACHINERY

Quality Bindery Equipment Since 1881

TrueScore-Pro Quad HD
TS30 Cover Scoring System

Instruction Manual & Parts List

Rev. 11-19

PATENTED DESIGN
U.S. PATENT 10,464,277

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Manufactured in the USA since 1881

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TrueScore-Pro Quad HD Scoring System

INTRODUCTION

Congratulations on your purchase of this TrueScore-Pro Quad Scoring System. The TrueScore-Pro system will produce a perfect score and crack free fold every time.

The components are packaged with special care to provide safe delivery. However, damage during transit may occur. Before signing for delivery of this unit check the following:

- Make sure you have all items shown on your delivery ticket.
- Make sure all packages are in good condition and free from damage.
- If items are missing or damaged, briefly describe the problem on your packing list and have it signed by the carrier's agent (truck driver).

GENERAL DESCRIPTION

The consignee (your company) must promptly file all claims with the carrier's company. According to the Interstate Commerce Commission, you may file for visible and concealed damage.

Operating Principles of the TrueScore-Pro Quad HD Scoring System

Rosback's TrueScore-Pro Quad HD Scoring System is specifically designed for hinge scoring perfect bound book covers. Rosback's TrueScore-Pro Quad HD Scoring System is the most innovative, versatile and simple to use hinge-scoring system currently on the market with many variations of assembly. The TrueScore-Pro Quad HD Scoring System can be used for all cover stock materials including laminate, UV coated and especially sensitive materials that have been digitally printed. The kit contains a selection of male scoring discs that are color-coded for different weight stock. The kit also contains four female spring steel spacer shims enabling two female groove widths to be used. When the heads engage, the male scoring discs gently and progressively stretches the stock into the specially designed female groove providing a deep, perfect crease and crack free fold every time.

The upper and lower heads are supplied partly assembled with a few components. The heads can be assembled with the supplied loose components to suit the combination and spacing required.

These TrueScore-Pro Quad HD heads will fit Muller Perfect Binders having two pairs of 30.0mm diameter scoring shafts including these machines. Accoro, Bolero, Corona, Monostar, Normbinder, Starbinder, Starplus and others.

SECTION 2
TrueScore-Pro Quad HD Scoring System

STANDARD HEAD CONFIGURATION

Upper & Lower Heads

For the standard configuration that places the hinge score in the opposite direction as the spine score, assemble all (4) heads with a male scoring disc and female scoring collar as shown in Fig. 2.1. There are two color-coded male scoring discs to choose from. The selection of the male scoring disc is generally based on the width of the score required and the weight of the stock to be scored. The black is narrow and the red is wide. The female collars can be spaced apart creating a wider female groove by inserting the spring steel female spacer shim between one outer female collar and the center female collar. Generally the red male scoring disc can be used in a wide or small female groove however it is recommended that the black male scoring disc only be used in the smaller female groove. A combination of red and black male scoring discs can also be used, generally black for the spine score and red for the hinge score depending upon stock thickness.

By adding the thin split spacer discs located between the support disc and the first outer female collar the dimension between the hinge score and the spine score can be adjusted see Fig.2.2

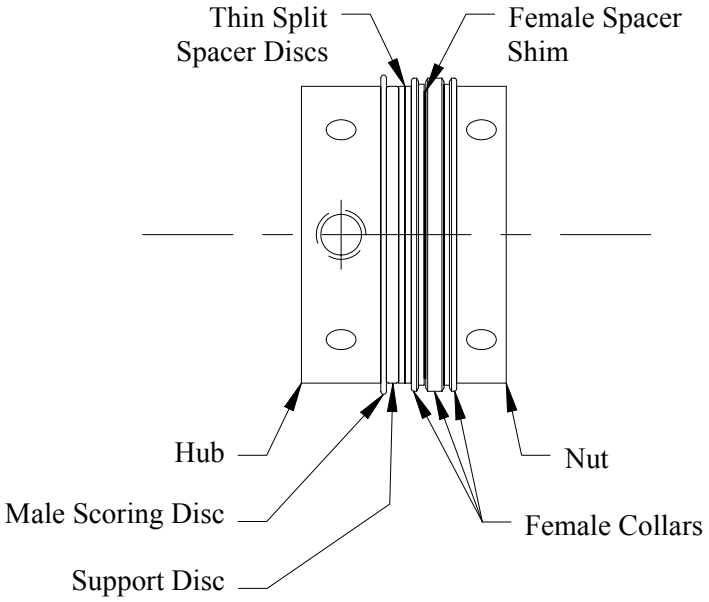


Fig 2.1 Standard Upper & Lower Head Configuration.

SECTION 2
TrueScore-Pro Quad HD Scoring System

Selection Of Components

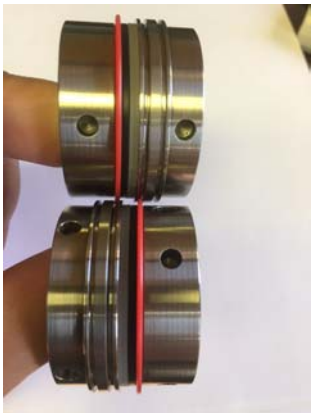
Selection of Components

Selection of the two different male scoring discs and female collars groove size will produce two different widths of score. While experimentation and experience will determine which combination works best for a given job and stock thickness, use the following guidelines as a starting point.
For lighter cover stock, 60-65 lb (160-175 GSM), requiring a narrow score, use the **black** male scoring discs in alignment with the female collars smallest groove (**no** spring steel female collar shim).
For heavier cover stock, 80-150 lb (180-390 GSM), requiring a wider score, use the **red** male scoring discs in alignment with the female collars largest groove (**add** spring steel female collar shim).

Initial Setup

Initial Setup.

This procedure describes the preferred standard configuration with a combination of male and female scores. See fig. 2.2 and 2.3.
Determine the spine score to the hinge score dimension; shown as dimension “X” or dimension ”Y” in Fig.2.2.
Assemble the selected male scoring discs with the support disc. Align the male scoring disc split with the hub set screw. Assemble the female scoring collars with spring steel female collar shim if required, and any thin split spacer discs onto the hubs in the location shown. If using multiple thin split spacer discs, offset the splits. Always use the same quantity of thin split spacer discs for the upper and lower heads.
Finger tighten the nut, then back off the nut ¼ turn. Use your thumb and forefinger to gently squeeze the male disc split closed, and finger tighten the nut.



Use your finger to check the male scoring disc split has not opened or formed a step. If you feel the split has opened or is stepped, repeat the above process. Otherwise, use the tools supplied to tighten the nut, but do not over tighten. **If the locking bars are bending then the nut is being tightened onto the hub too tight.**
Hold the upper head over the lower head inserting the male scoring discs into the female grooves and visually check the alignment of the male scoring discs and the female collar grooves.

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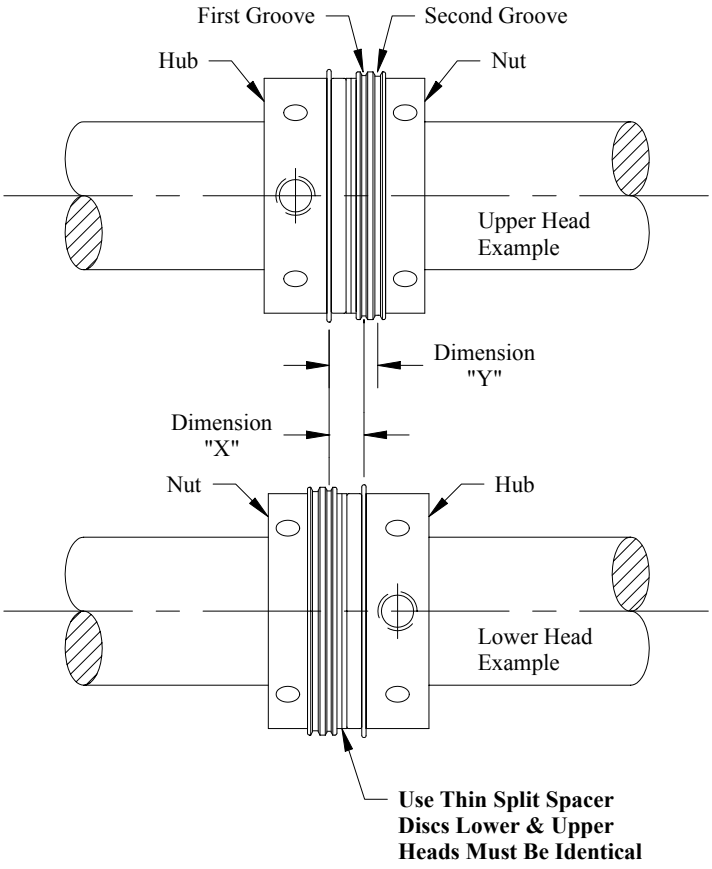
TrueScore-Pro Quad HD Scoring System



First Groove

Dimension "X"	Use Thin Split Spacer Discs
4.0mm (0.157")	None
5.0mm (0.197")	One
6.0mm (0.236")	Two
7.0mm (0.276")	Three

Second Groove

Dimension "Y"	Use Thin Split Spacer Discs
8.0mm (0.315")	None
9.0mm (0.354")	One
10.0mm (0.394")	Two
11.0mm (0.433")	Three

Fig. 2.2 Standard Head Configuration.

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TrueScore-Pro Quad HD Scoring System

MAKE SURE THE MACHINE POWER IS TURNED OFF, LOCKED & TAGGED.

Final Setup

Final Setup

For examples of machines having first or second linear adjustable shafts see Fig. 2.3, 2.4, 2.5, and 2.6

Determine which layout is for your machine.

1. Remove the shafts from the machine.
2. Place upper heads onto #1 and #2 upper shafts with a setting collar; **note** the position of the head hubs they should be against the collar.
3. Place lower heads onto #1 and #2 lower shafts; **note** the position of the hubs.
4. Install the shafts into the machine.
5. Raise both upper shafts to the fully up position.
6. Position the first or second lower heads to the fixed clamp side of the machine where the scores are required and lock onto the shafts.
7. Move upper heads until the male scoring discs aligns with the female lower collar grooves. The upper heads should remain free to move laterally on the shaft.
8. Lower the upper shafts until the male scoring discs are fully engaged into the female collar grooves.
9. Lock the depth control, rotate the shafts two full turns, this will automatically align the upper heads with the lower heads.
10. Continue rotating until the upper head set screws become accessible.
11. Carefully lock the upper heads onto the upper shafts making sure not to move the upper heads laterally.
12. Position the setting collars against the upper head hubs and lock onto the shafts.
13. Now, feed a piece of stock through the cover feeder and inspect the score. Adjust the depth control to obtain the desired score depth.

Please note that the depth of score should be the maximum obtainable without cutting the stock. This will ensure good folding results at the spine as well as at the hinge.

SECTION 2

TrueScore-Pro Quad HD Scoring System

Example For Machines Having Linear Adjustable First Shafts.

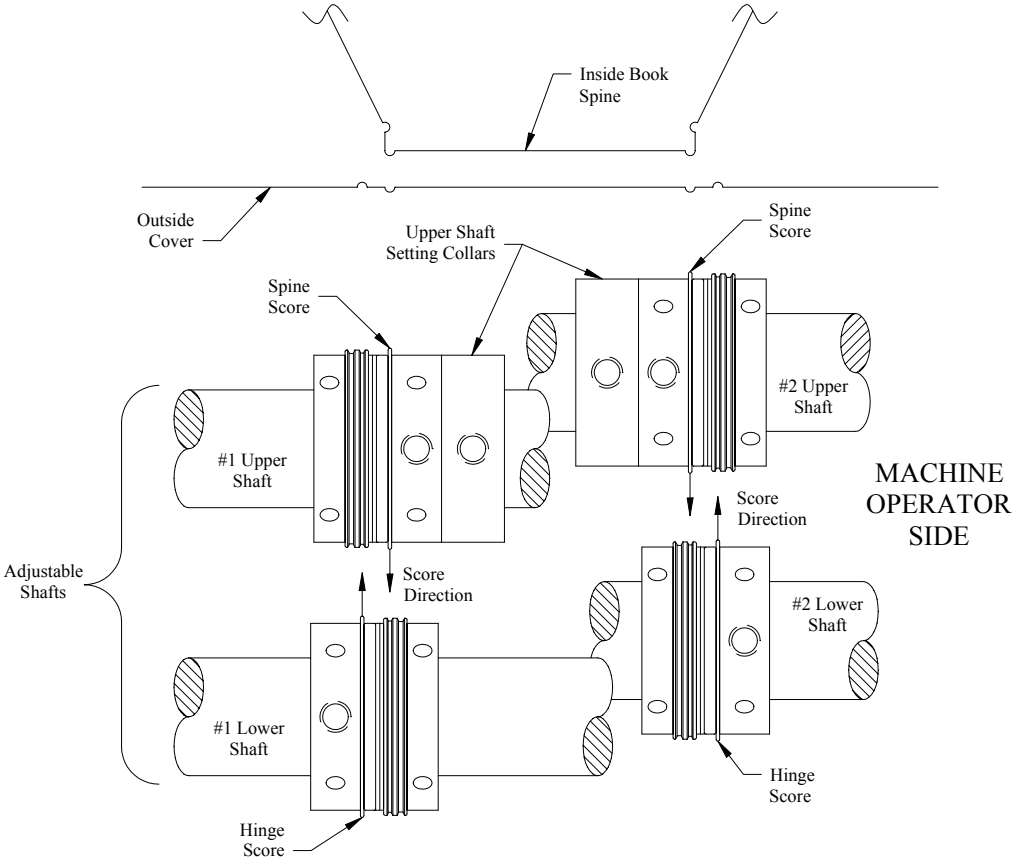

Fig. 2.3

SECTION 2

TrueScore-Pro Quad HD Scoring System

Example For Machines Having Linear Adjustable First Shafts.

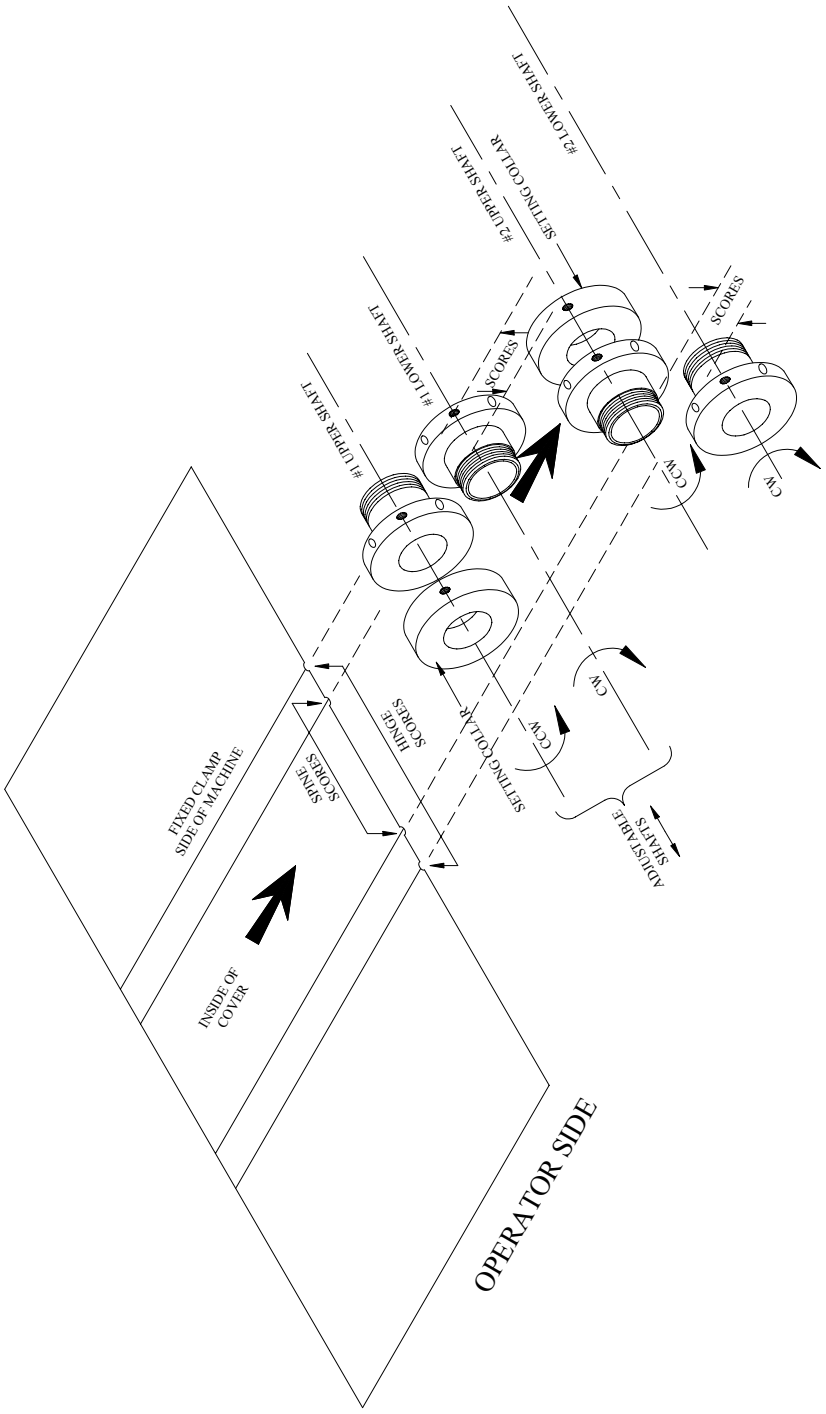

Fig. 2.4

SECTION 2

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Example For Machines Having Linear Adjustable Second Shafts.

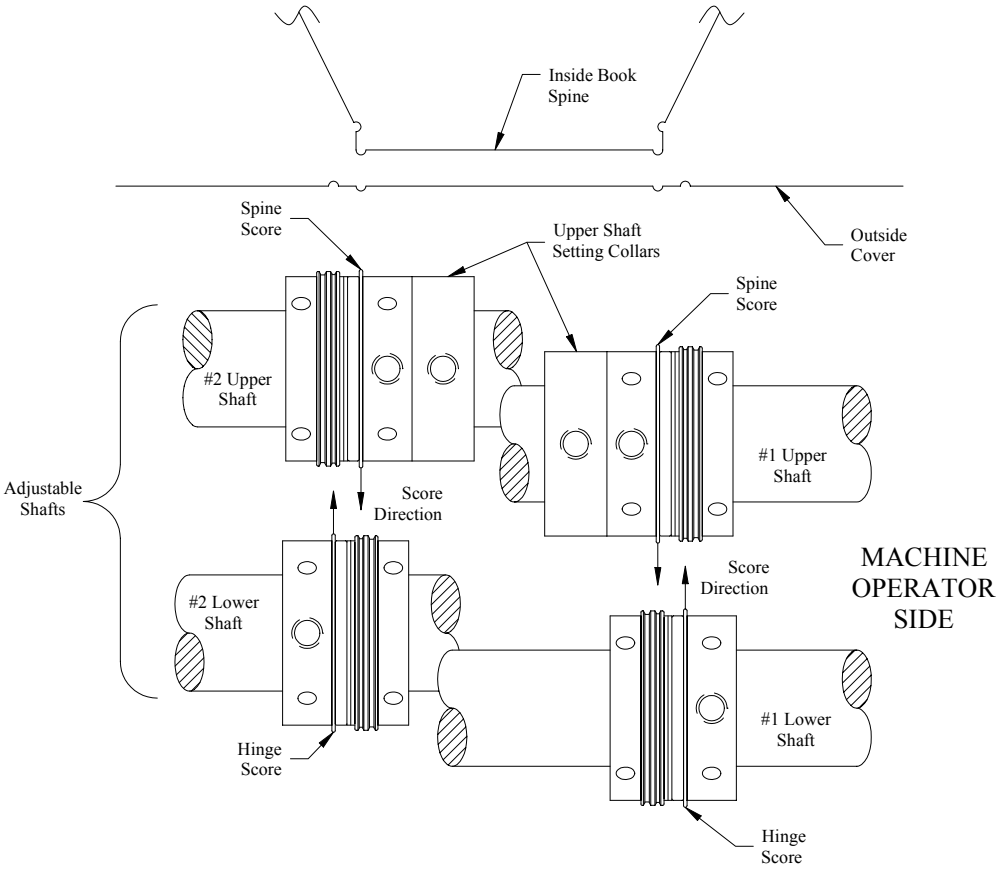


Fig. 2.5

SECTION 2

TrueScore-Pro Quad HD Scoring System

Example For Machines Having Linear Adjustable Second Shafts.

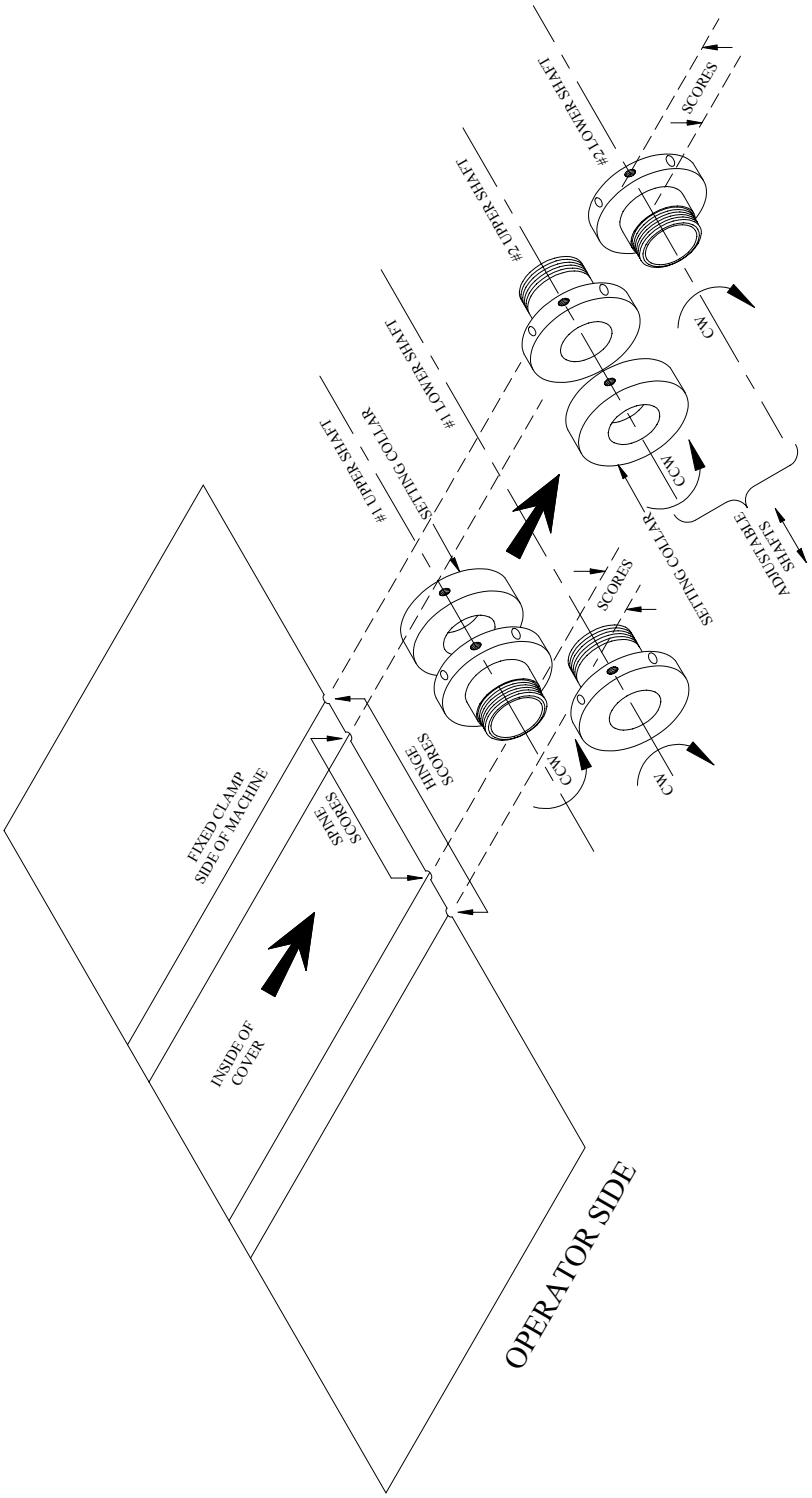


Fig. 2.6

SECTION 3
TrueScore-Pro Quad HD Scoring System

Maintenance

MAKE SURE THE MACHINE POWER IS TURNED OFF, LOCKED & TAGGED.

Changing or replacing the male scoring discs and or relocating spacers.

This operation can be done without removing the scoring head assembly from the shaft.

1. Raise the upper shafts to the fully up position.
2. Loosen the upper heads and move away from the setting collar gaining access to the lower heads.
3. Loosen the nut and remove it from the hub sliding it along the shaft.
4. Carefully remove all the necessary components from the hub and slide them along the shaft.
5. Remove the male scoring disc or thin split spacers as desired by twisting and maneuvering them off the shaft. **Under no circumstances should the spacer discs be inserted between the male scoring disc and the support disc. This will cause premature deterioration of the male scoring disc and adversely affect the quality of the score.**
6. Put new male scoring discs onto the shaft into the correct location. If just changing the size of the male scoring disc.
7. Add, subtract or re-position the thin split spacers where necessary. **Use the same number of spacers in the upper and lower opposing heads.**
8. If changing the female groove width, carefully twist and remove the spring steel female spacer shim off the shaft. Re-insert the shim between the outer female collar and the center female collar where the desired wider groove is required.
9. Re-assemble the components onto the hub.
10. If using multiple thin split spacers it is advisable to offset the locations of the splits and not have one split next to the adjacent spacers split.
11. Carefully push all the components against the hub face. Finger-tighten the nut, then back off the nut ¼ turn. Use your thumb and forefinger to gently squeeze the male scoring disc split together, then finger tighten the nut.

SECTION 3
TrueScore-Pro Quad HD Scoring System

Maintenance Continued

12. Use your finger to check the male scoring disc split has not opened or formed a step. If you feel the split has opened or is stepped, repeat steps 8 and 9.
13. Finally tighten the nut, **DO NOT over tighten. Only use the supplied locking bars to tighten the nut onto the hub. Tighten to the point where the locking bars begin to bend and no further. This will apply enough torque to secure all the components on the head assembly.**
14. Slide the upper heads up against the setting collars; this should automatically align the upper heads with the lower heads.

SECTION 3
TrueScore-Pro Quad HD Scoring System

Maintenance Continued

Replacing Components.

Although the male scoring discs will last for a considerable length of time, they will eventually wear out and need replacement. If the quality or depth of score deteriorates, inspect the outer circumference of the male scoring disc for damage or signs of wear. Comparing the outer diameter and the tip profile of a used male scoring disc to a new one will indicate if the use one has worn down. The Red male scoring discs do have a different outside diameter than the Black male scoring discs.

The female scoring collars are manufactured from high quality stainless steel and should last for an exceptionally long time. However if the quality of the score deteriorates, inspect the outer circumference of the female scoring collars for damage or signs of wear. After an exceptionally long life the top of the groove angle where it meets the outer diameter may become rounded, producing a less defined score.

The Rosback Truescore-Pro Quad HD has high quality stainless steel hubs and nuts, these should never need replacing. The innovative design of the Rosback Truescore-Pro Quad HD system allows all the other components to be replaced as individual parts if necessary.

SECTION 4
TrueScore-Pro Quad HD Scoring System

Head Parts, Exploded View.

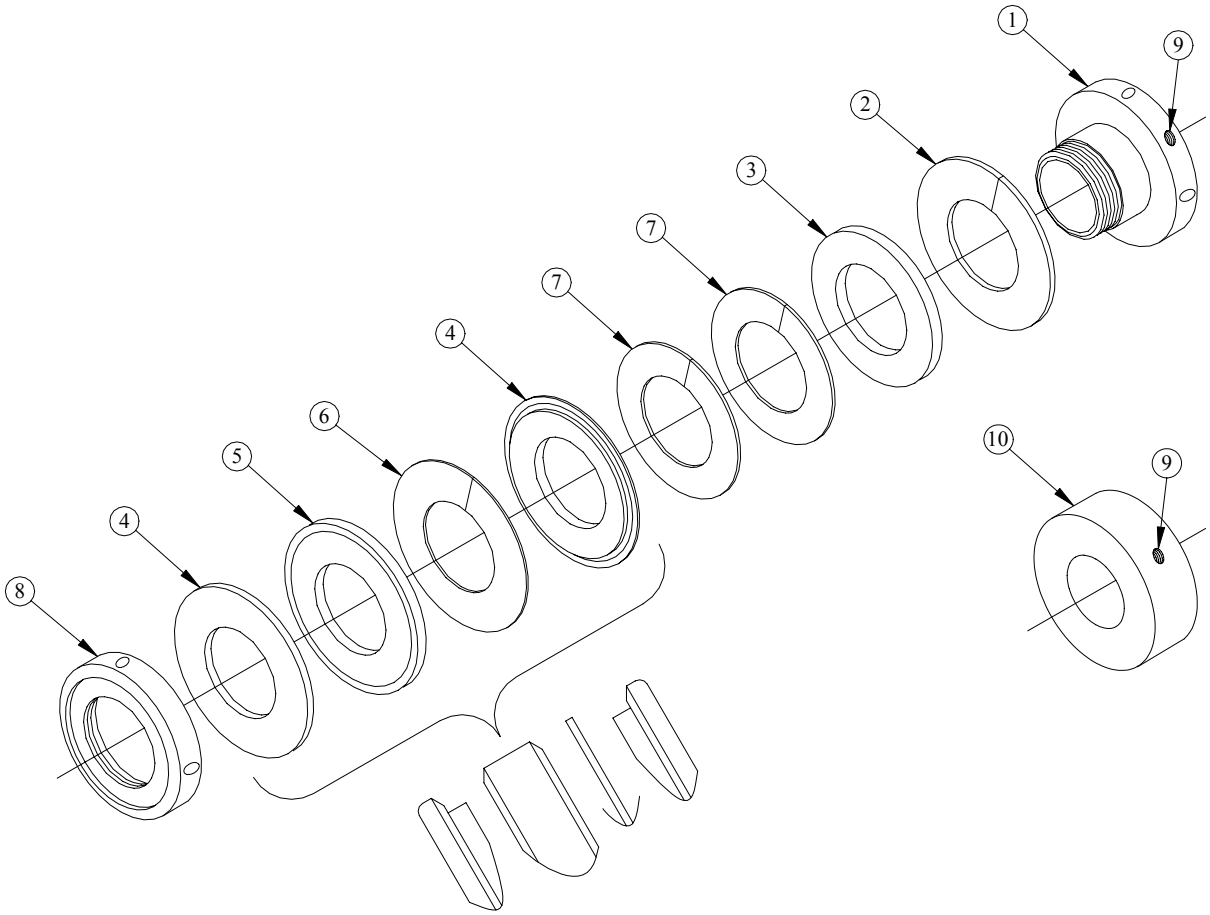
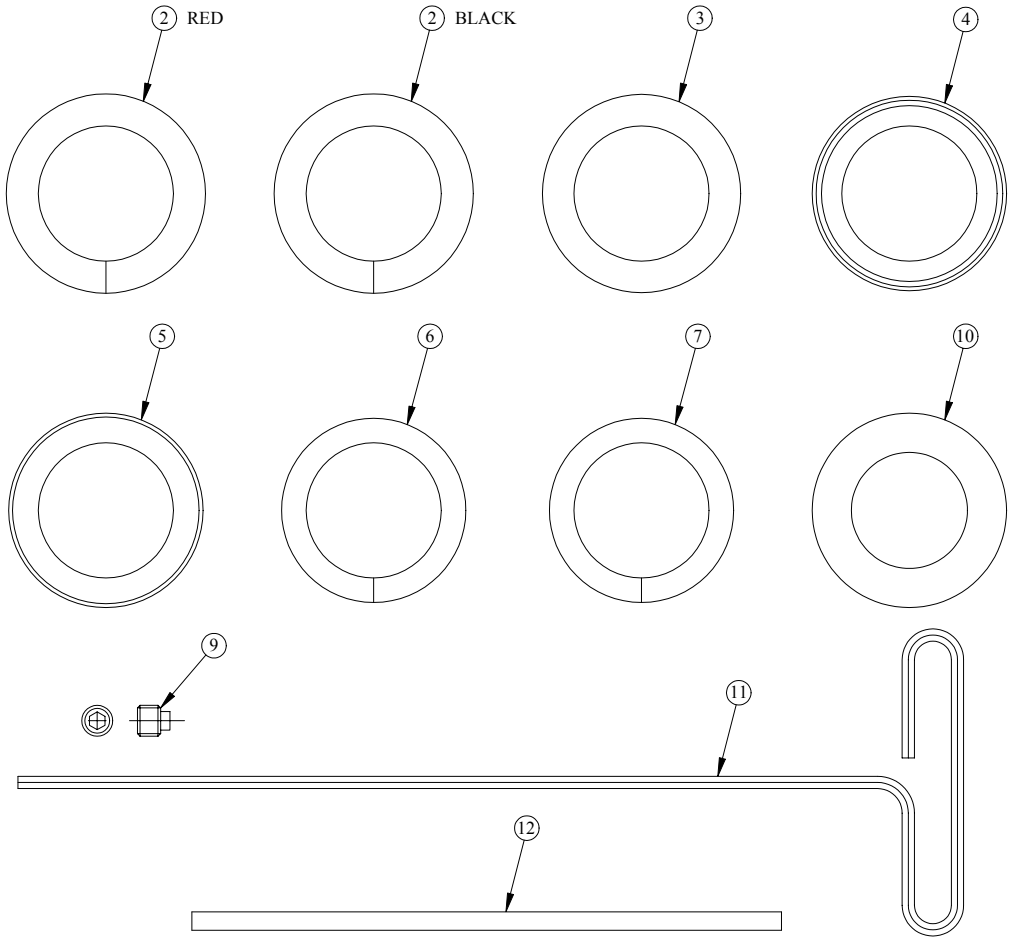


Fig. 4.1

SECTION 5
TrueScore-Pro Quad HD Replaceable Parts List



Item	Part No.	Description	Kit Quantity
	TS30-A-020	TrueScore-Pro TS 30 Quad Kit (Complete Pkg)	
1	TS30-020	TrueScore-Pro Hub 30	4
2	TS30-024	Male Scoring Disc - Red	4
	TS30-025	Male Scoring Disc - Black	4
3	TS30-028	Support Disc 30 Quad	4
4	TS30-036	Female Collar Outer	8
5	TS30-037	Female Collar Center	4
6	TS30-038	Female Spacer Shim	4
7	TS30-029	Thin Split Spacer Disc	12
8	TS30-021	TrueScore-Pro Nut 30	4
9	S-0857-7	Brass Tip Set Screw	6
10	TS30-034	Setting Collar	2
11	S-2744	Allen Wrench Tee Handle	1
12	220-445	Truescore-Pro Tool	2

NOTES

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Stitching/SaddleBinding

318 SaddleBinder
Automated 6-pocket feeding, stitching and 3-knife trimming of signature booklets ranging from 3-1/8 x 5-13/16 to 11-1/2 x 15. At 1800-5000 cph, the average production rate is 32,000 per 8-hour shift. StitchTech option inspects books and spits out any that is missing a signature on-the-fly.

LYNX SaddleBinder

The vertical space-saving lynx SaddleBinder automatically collates saddle stitches and 3 side trims delivering professionally finished books. Available in 4 or 8 pockets.

201 Auto Stitcher

Automatic saddle stitcher handles books or pamphlets up to 3/8 inch thick at operating speeds of 1800-5000 per hour.

Perfect Binders

Rosback 882 Series Binders are perfect for your binding needs. Run up to 600 cph with milling and side gluing. Quickly adjust between jobs.

Collating Solutions

Flat sheet collator handles 4x5 inch to 40x30 inch sheets of one-time carbon to vinyl floor tile in 5-35 stations. Signature collator with telescopic vacuum heads collates thick binder covers to 4-64 page folded sigs at up to 3500 cph. Options include finishing, numbering, gluing, and all necessary interfaces.

Perforating

True-Line Series
Includes 218, 220, 223 & 226 and SR Series models

18, 20 & 26 inch models. Includes single or tandem shaft models and side registration models. All are designed for accurate, high production perforating, slitting, scoring & creasing.

SR Series models offer highest registration accuracy with the ability to strike perforate using the Cobra Strike System.

240XL Series
Includes 240, 243, & 248

Perforate, slit, score and crease up to 25,000 sheets per hour with accurate consistent registration. Adapts to most folders for score and fold apps… vacuum fed and won't mark stock. 30x30 inch feed table holds a 30-inch lift of stock. Add a 248 right angle perforator for 2-directional apps. 243 Dual shaft model available for score-on-score. Now equipped with the ability to strike perforate with the Cobra Strike System.

Drilling

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Fast, accurate & efficient. Drill 2 inches of stock in a single stroke in drill sizes ranging from 1/8-1/2 inch.

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Heavy-duty 3-knife trimming is free-standing or goes in-line with other equipment like tower collators. Trims materials up to 3/8 inch thick at speeds up to 5000 cph.

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Four models available to move or store up to 800 lbs. and shipped in kit form to reduce shipping costs.

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