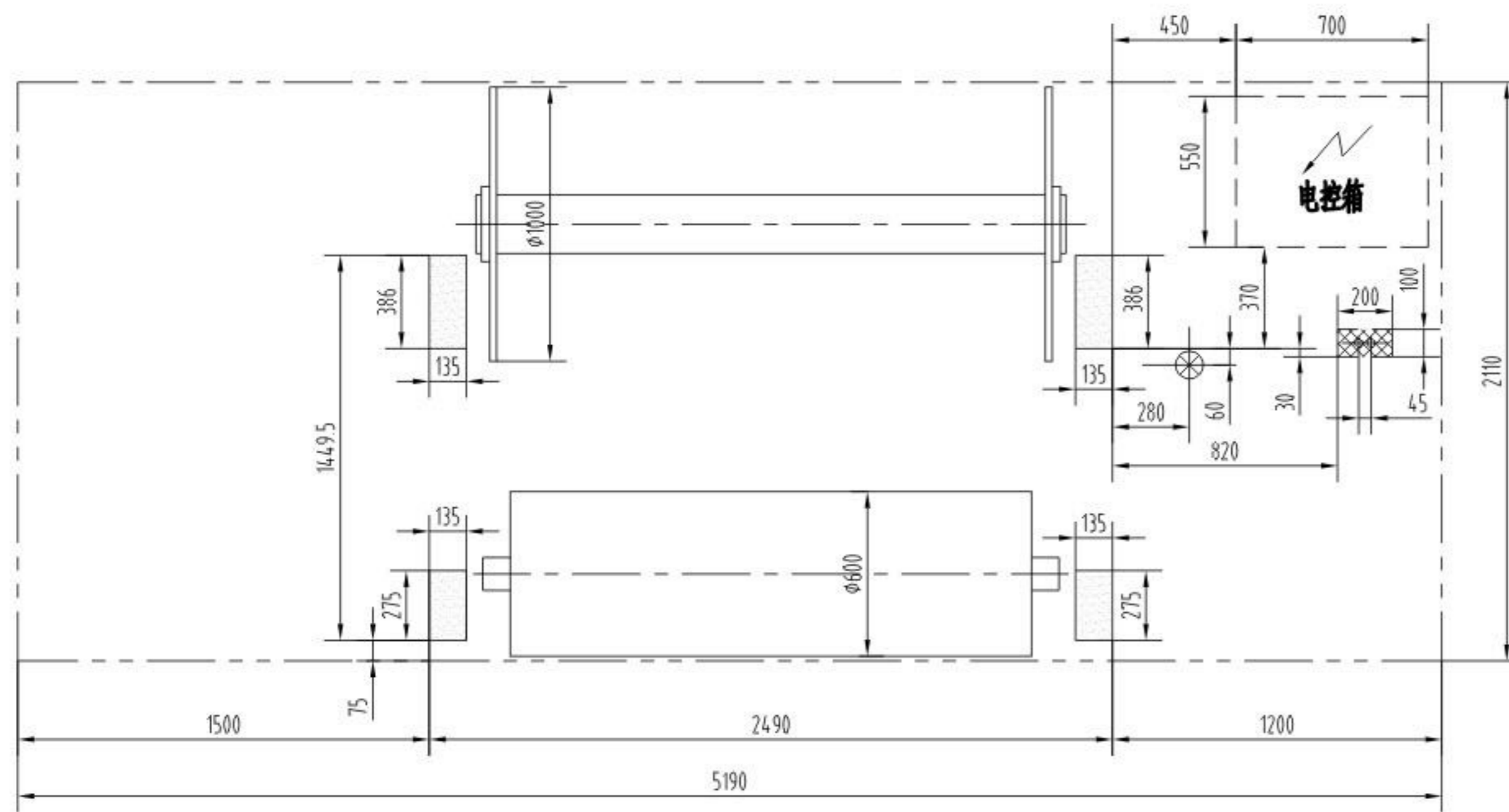




附图/Attached Drawing

机器外形尺寸/Overall Dimension of Type G1736 Rapier Loom



## G1739 型剑杆织机

TYPE G1739 RAPIER LOOM



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## G1739 型剑杆织机 Type G1739 Rapier Loom



G1739型剑杆织机是一款高标准设计与制造的先进织机，可以为用户提供高效率、高质量、更高的灵活性及可靠性、节约能源的织造解决方案。

Type G1739 Rapier Loom is an advanced machine based on high standard design and manufacture, which will provide customers weaving solutions with high efficiency, high quality and energy saving.

### 双共轭凸轮/Double Conjugated Cams

打纬动作由共轭凸轮机构驱动，此机构位于织机胸梁两侧，这种结构既坚固又稳定，适合织造牛仔布、色织面料、床品及工业用布等，同时在织造组织疏松或轻薄织物时能将纬纱精准的打入织口；由于开口适中，满足高速运转状态。

Beating-up motion is driven by conjugated cams, which is located at the both side of loom front rest. This strong and stable structure is suitable for denim, yarn dyed fabric, bedclothes, and industrial fabric. Meanwhile, the machine can exactly fill weft yarn into shedding when weaving open weave and light weight fabric. Suitable shedding can meet the requirement of high speed operation.

### 节能化设计/Energy Saving Design

简化的传动方式（专利）极大地提高了整机的机械效率，避免了无益的能量消耗；专利的变速马达能在织机启动时提供充足的能量，在正常高速运转时维持较低的能量消耗，在停车时完全没有空转能耗；风机电机也仅在高速运转时启动，因此该机比常规织机节能最高可达20%。

The simplified transmission (patent) greatly increases the mechanical efficiency of the whole machine and avoids the useless energy consumption; The variable speed motor (patent) can provide sufficient energy when the loom startup, keep lower energy consumption while in normal high speed running, and be free from energy consumption when machine stop; Fan motor is also started only in high speed production; consequently the machine can save energy up to 20% than conventional loom.

### 简洁、坚固的结构/Compact and Strong Structure

箱式墙板通过坚固的横梁相连提供了稳固的支撑，整机的结构极其稳固与简洁。系统化的平衡与减振措施保证了设备高速运转时的稳定性。

主传动（专利）：由一个特殊设计的变速马达（专利）直接驱动整机运转，取消了易于磨损及损坏的电磁离合器及传动皮带，极其简洁的传动系统既减少了故障点又提高了机械效率，核心的运动部分均进行了详细的承载及润滑设计，以满足长期、高速无故障运行。

Box-type wallboard connected through solid cross beam provides a stable support for the whole machine and quite a strong and compact structure as well. Systematic balance and vibration damping measures ensure the stability while the loom running at high speed.

Main Drive (Patent): The whole machine is directly driven by a specially designed variable speed motor (patent) rather than the outdated electromagnetic clutch and transmission belt. So the simple driving system reduces the trouble points as well as improves the mechanical efficiency. The core moving parts are exactly designed upon its load and lubrication to benefit the long term and trouble free running at high speed.



## 最优化的织造设定及纱线适应/Optimized Weaving Process Parameter Set and Yarn Adaption



电脑终端屏  
Computer Terminal Screen

根据织物的品种不同，改变变速马达转速以使织机运行在最经济的速度和效率状态。通过电脑终端屏的操作，可控制织物的综平角度、经纱张力、卷取纬密、多臂选色花型的编辑、绞边的平综时间等，从而使得整机运转在最优化的状态。

The cost-optimal and efficient state can be reached by adjusting the speed of motor according to different fabric varieties. The whole machine will run in the optimal state through the operation of the computer terminal screen such as controlling the heald leveling angle of fabric, warp tension, take-up weft density, pattern editor of dobby color selection, heald leveling time of selvage etc.

经C型导钩导引的引纬方式，使该机可以轻松适应多种类型纱线的织造，最大限度地减少经纱与剑带的摩擦；优化的剑头截面使得梭口的高度更小，进一步降低经纱的断头。

Weft insertion type, guided by c-type guide hook, making the loom easily suited for weaving of different yarn, and reducing furthest friction between warp yarn and rapier belt. The optimized rapier head section makes smaller shedding height and further reduces the end-broken of the warp.



剑头梭道引导  
Rapier Head Race Guide

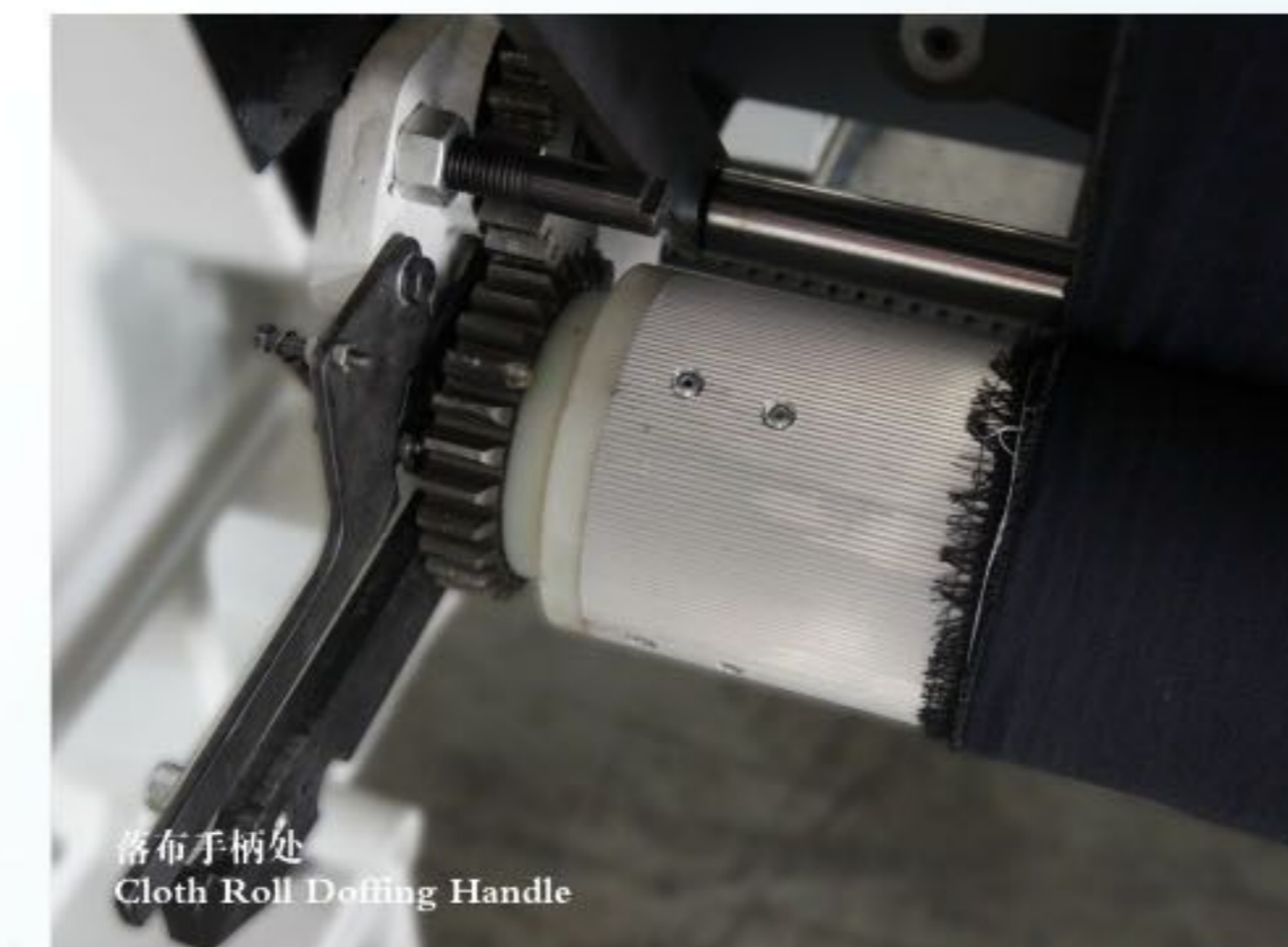
## 简易的操作和维护/Easy Operation and Maintenance

操作：基于人体工程学的操作设计如低矮的机身、倾斜的操作位、方便的落布及上轴操作装置连同快速改变的工艺设定方式均使得该机非常易于操作和使用。

维护：本机的大多运动部位润滑均由独立的强制循环润滑系统提供，并设有油温、油压、堵塞监测等多重防护，用户仅需定期换油即可。没有了传动皮带及易于磨损的电磁离合器等结构也使得该机的日常的维护极其简单和轻松。

Operation: The machine is very easily operated due to humanized design based on human body engineering such as low frame, slant operation position, convenience of cloth roll doffing and loading as well as the quick setting of process parameters.

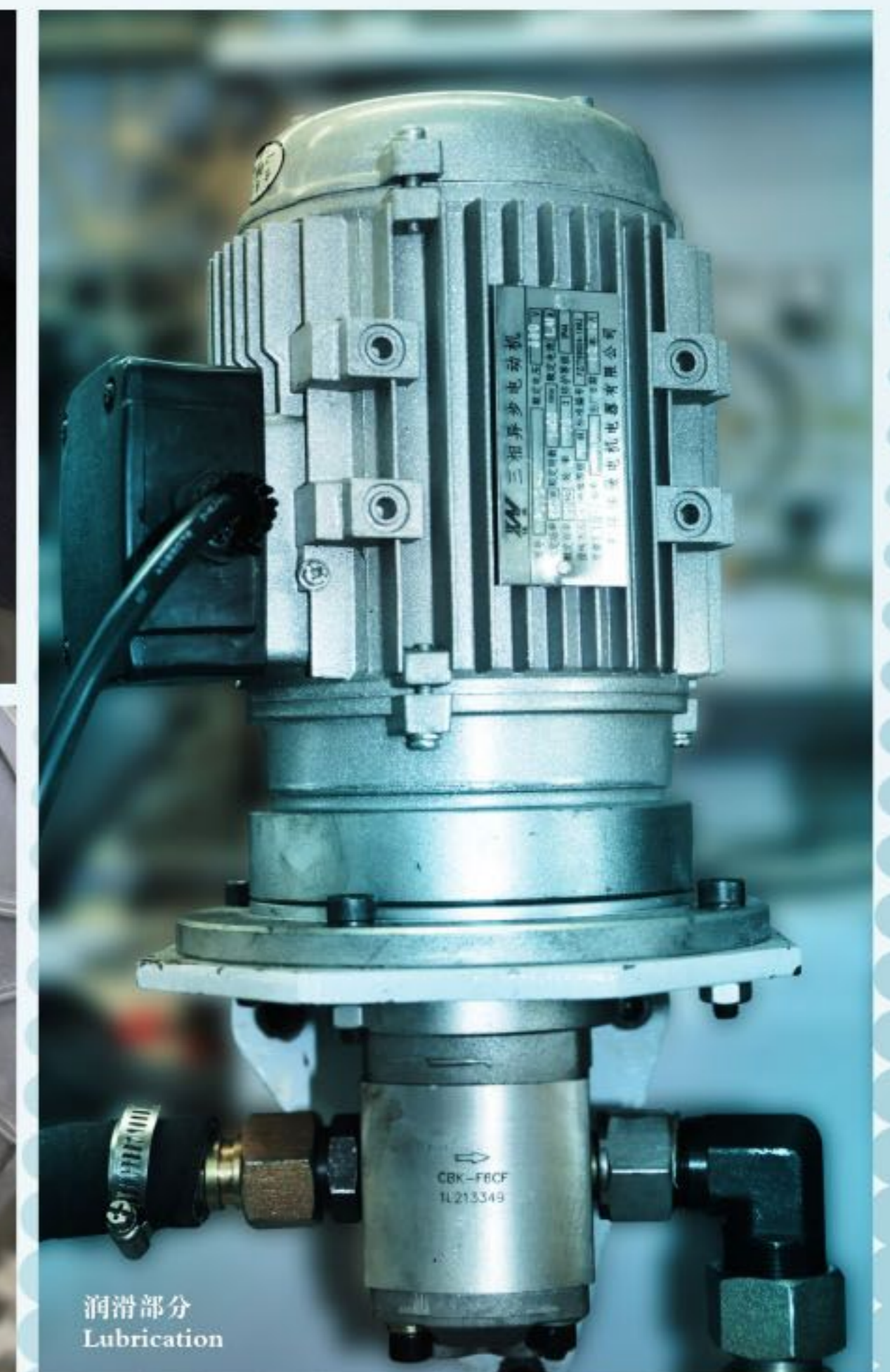
Maintenance: The lubrication of the mostly moving parts is provided by an independent forced circulation lubrication system with multiple protections such as oil temperature, oil pressure and jam monitoring, so the customers only need an oil change on a regular basis. Free from structure of transmission belt and electromagnetic clutch makes the machine daily maintenance very simply and easily.



落布手柄处  
Cloth Roll Doffing Handle

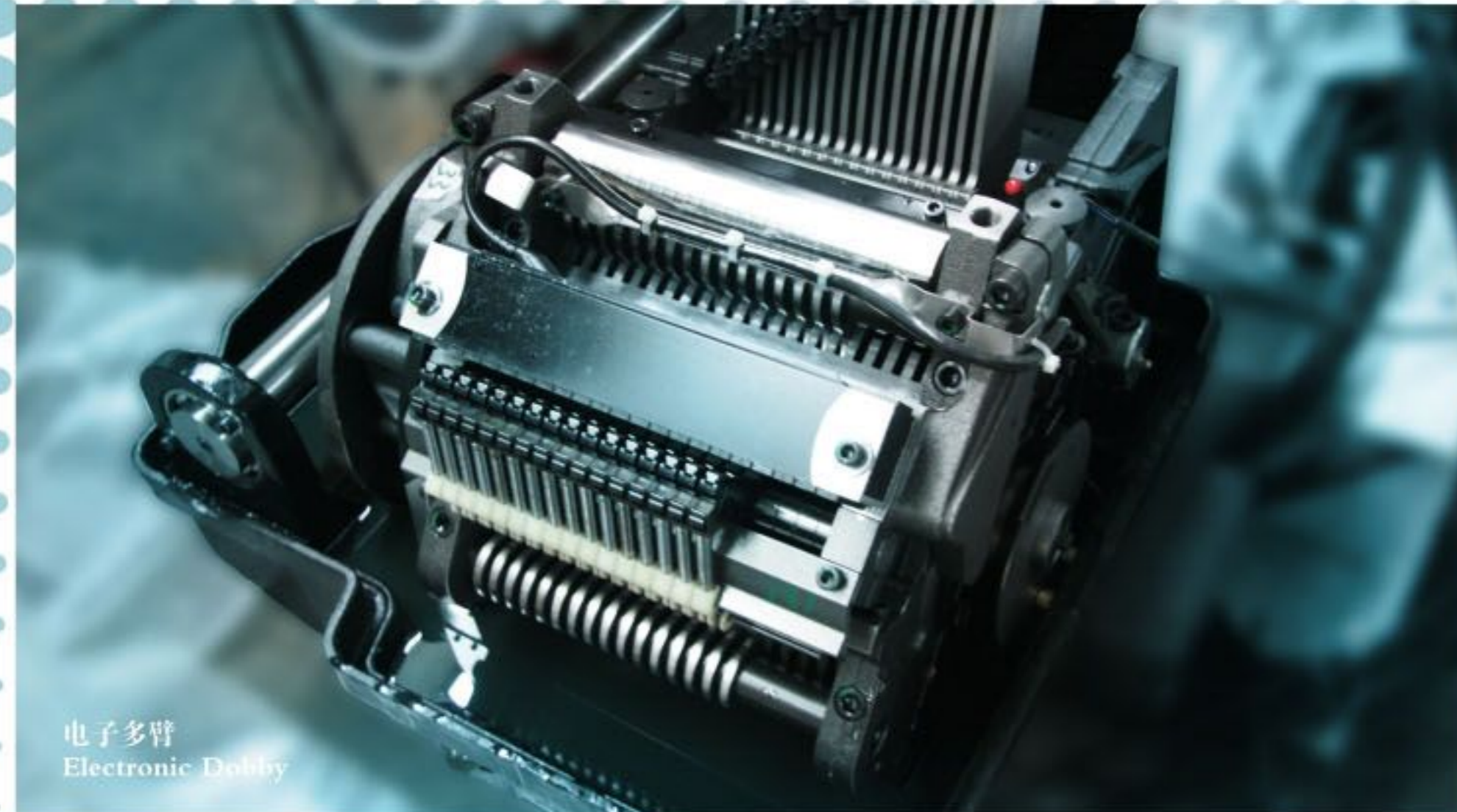


送经轴轴处  
Let-Off Warp Beam



润滑部分  
Lubrication

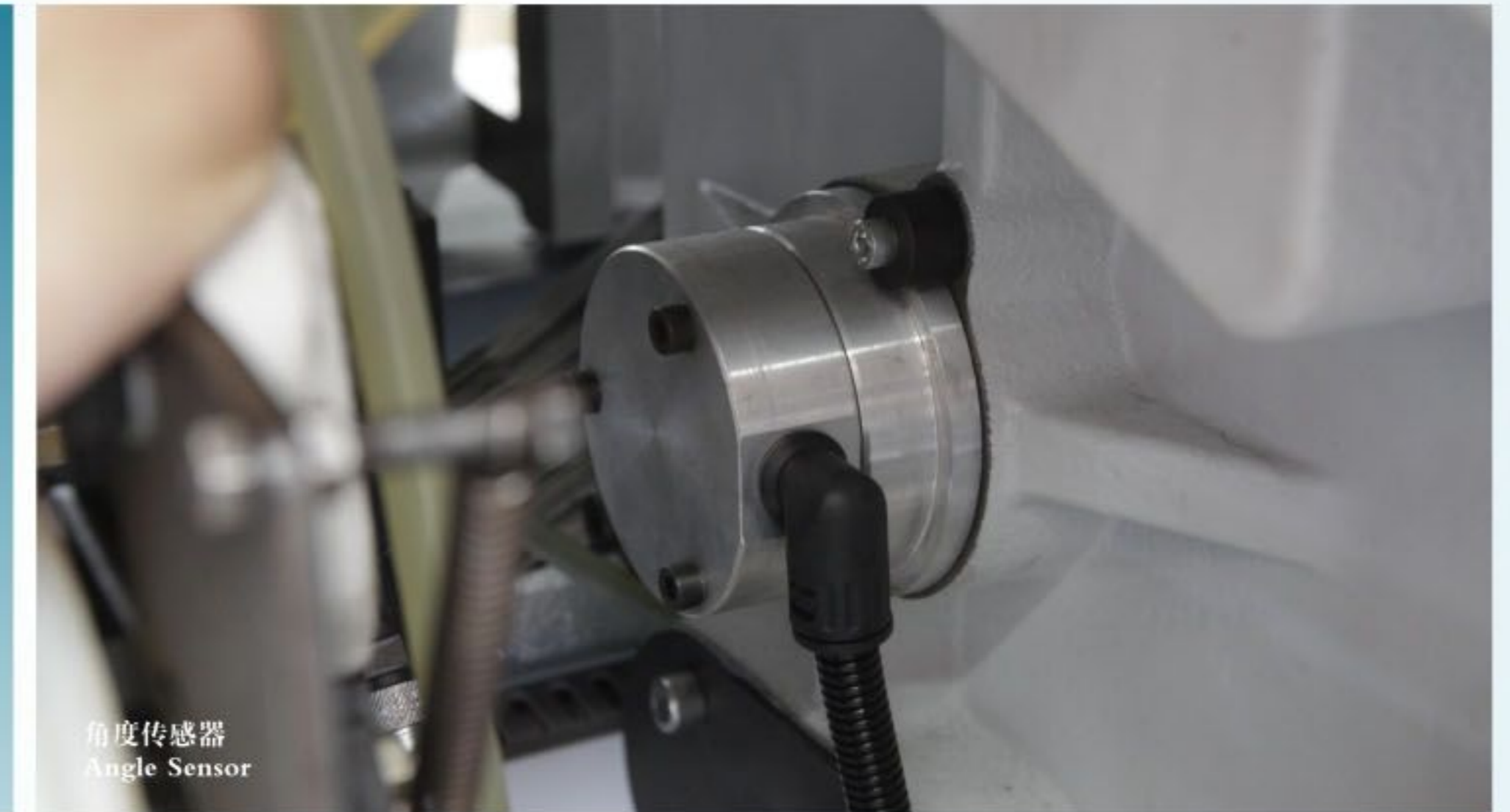




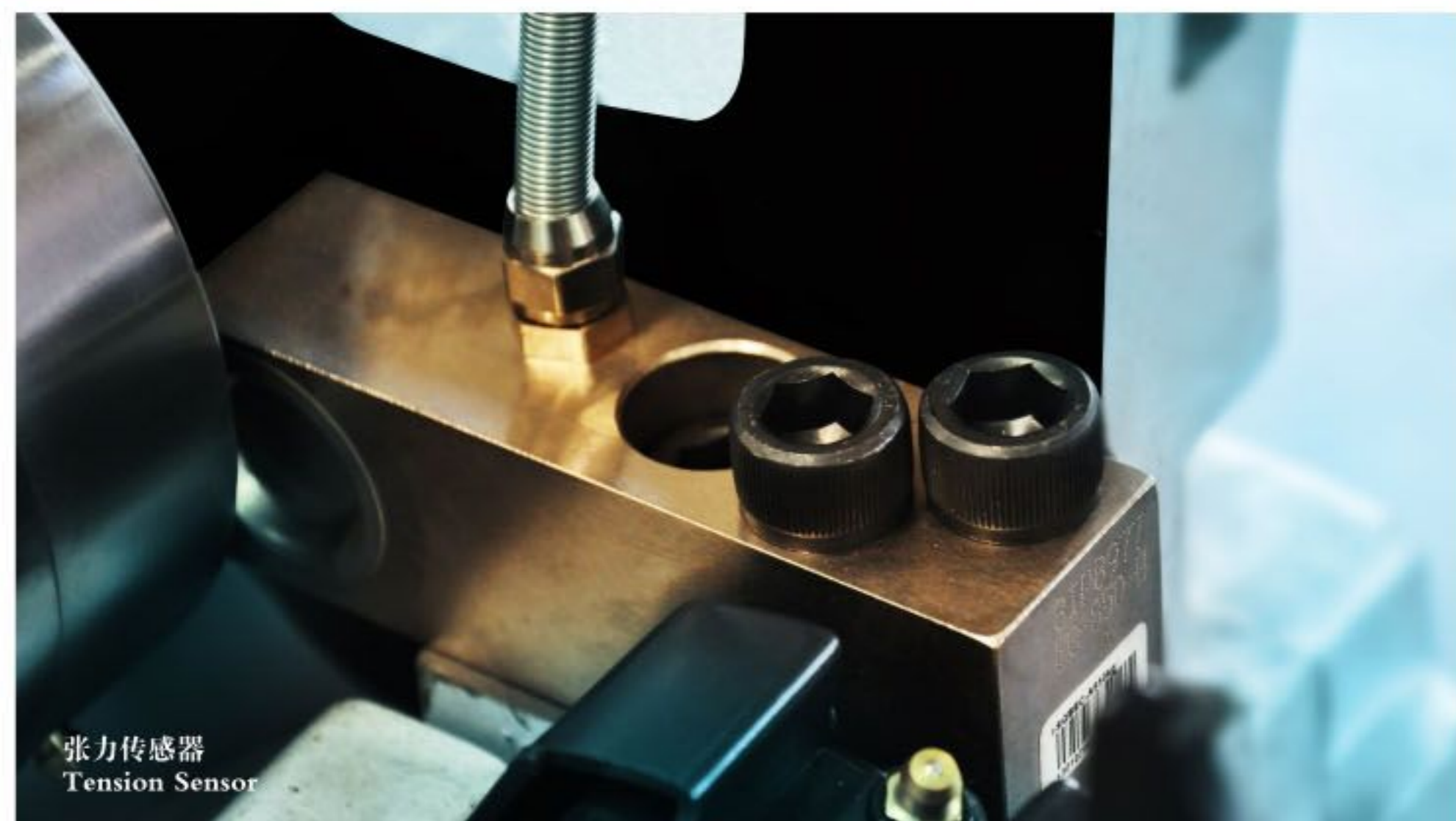
电子多臂  
Electronic Dobby



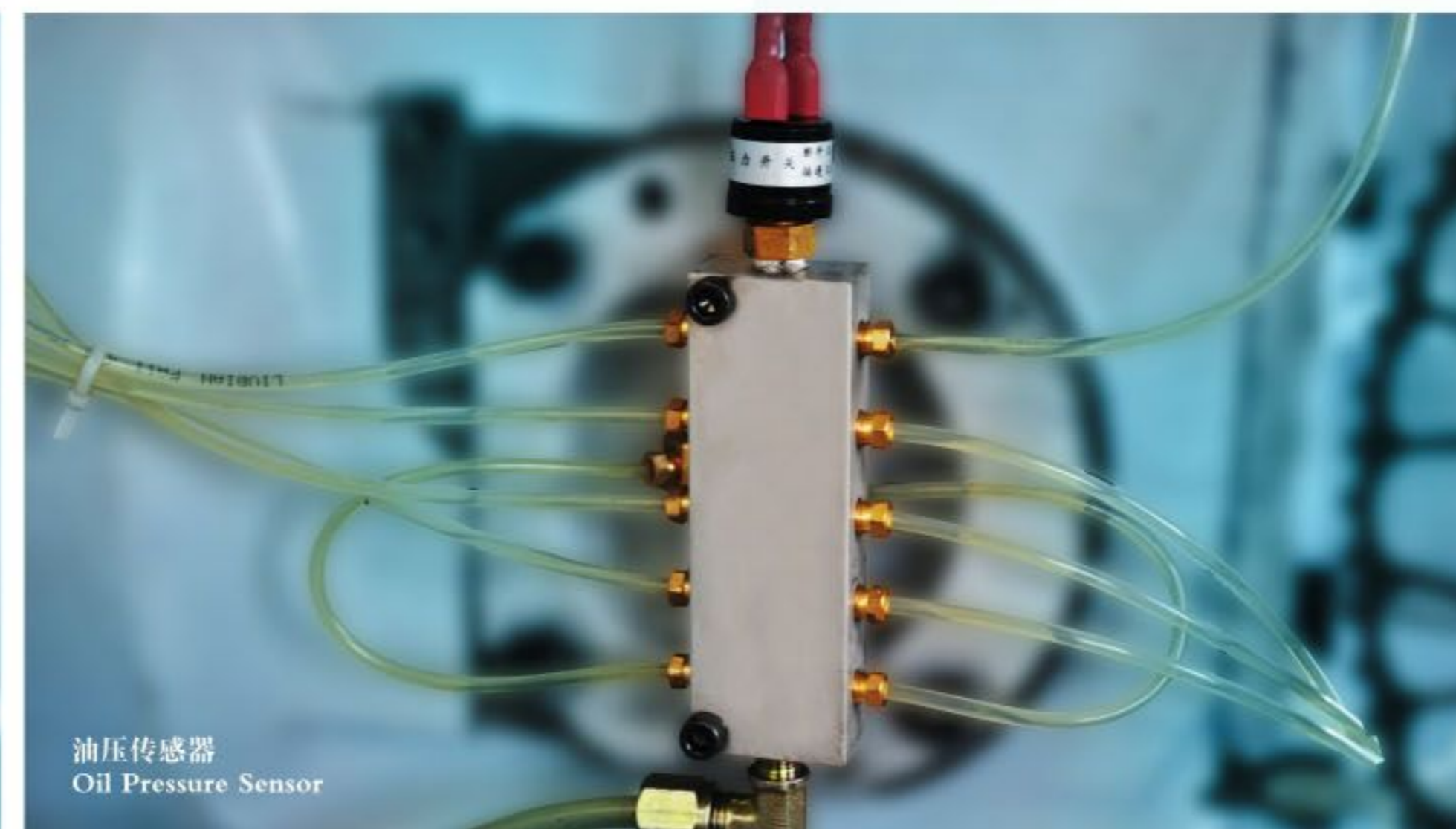
纬纱检测器  
Weft Detector



角度传感器  
Angle Sensor



张力传感器  
Tension Sensor



油压传感器  
Oil Pressure Sensor



电子边剪  
Electronic Edge Cutter

## 完善的电子化配置/Perfect Electronic Configurations

G1739型剑杆织机配有电子多臂、电子送经、电子卷取、电子选色、电子绞边、电子边剪（或机械边剪）等功能模块，完善的电子化配置使使用更为便利，仅通过改变电脑终端的参数即可控制大多数工艺参数的调整。

Type G1739 rapier loom is equipped with electronic functional module such as electronic dobby, electronic let-off and electronic take-up, electronic color selection, electronic selvage, and electronic edge cutter (or mechanical edge cutter) etc. The perfect electronic configurations make the operation much more easily and convenient, which can realize the adjustment of the most process parameters only through the computer terminal.



**双后梁/Double Back Rest**

G1739型剑杆织机在织造厚重织物时，双后梁机构发挥了关键作用。在织造一些特殊品种织物及低弹性纱线时，可卸下固定辊，留下摆动辊，形成反应灵敏的动态后梁。

It will play a key role while weaving heavy fabric. The flexible dynamic back rest structure, by dismantling the fixed roller and keeping only swing roller, can be used for weaving some special fabric and low elastomeric yarn.

**双压布辊/Double Press Rollers**

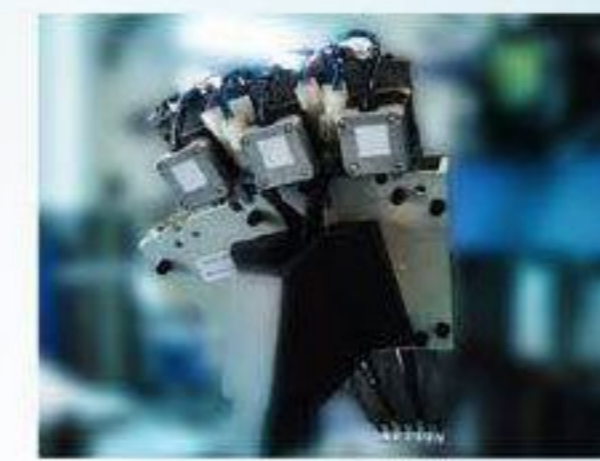
G1739型剑杆织机配置了双压布辊机构，使得布面与刺辊形成最大包裹角度，确保织造厚重织物时，织物不会打滑。

Double press roller structure is adopted to form the Max. wrap angle between the fabric and porcupine roller in order to ensure no fabric slipping while weaving heavy fabric.

**电子绞边/Electronic Selvage**

电子绞边机构由步进电机驱动，并由单独的系统控制。可单独设定综平时间，从而适应特殊品种织物及弹力纬纱的织造。

The device is driven by stepper motor and controlled by independent control system. The heald leveling time can be set independently, so as to adapt to the weaving of special fabric and elastomeric weft yarn.

**电子选色/Electronic Color Selection**

选色指完全模块化并可互换，每个选色指由单独的步进电机直接驱动，无机械传动，无需保养或润滑。选色指的动作由电控箱内的微处理器控制，颜色及花型的编辑及修改可在触摸屏上直接操作。

Color selection needle is completely modularization and interchangeable, each directly driven by independent stepper motor, without mechanical drive and without maintenance and lubrication. Color selection needle is controlled with microcontroller in the panel, and the edit of color and pattern can directly be operated on touch screen.

**完全润滑/Complete Lubrication**

通过完善的润滑油循环系统，对全机各关键轴承提供持续、可靠的润滑，完全避免了因轴承缺油损坏造成的不必要停台。

The perfect oil circulation system provides the key bearings of whole machine continuous and reliable lubrication, completely preventing unnecessary stops due to bearings damaged.



## 电子卷取和电子送经 / Electronic Take-up and Electronic Let-off

G1739型剑杆织机标准配置了电子控制的送经和卷取机构，所需的纬密通过控制面板设定，不再需要频繁变换纬密齿轮。并且使得用户轻松达到最佳克重和最小纬纱消耗。设定的经纱张力通过安装于后梁上的张力传感器由CPU处理后发出指令，驱动送经伺服系统工作，保证经纱张力从满轴到空轴始终在很小的范围内波动。送经和卷取机构的控制全部集成于电控箱内，通过电脑实现送经与卷取的完美匹配，有效减少了开车痕。

Electronic take-up and electronic let-off motion is standard configuration. The weft density is set through the control panel, no longer need to frequently change pick wheel, which enable the customers getting the optimum fabric weight and minimum weft yarn consumption. The warp tension control is carried out by means of the tension sensor installed on the back rest, CPU processing and let-off servo driven system, so as to ensure the small tension fluctuations from full to empty beam. Let-off and take-up motion control is integrated in the electric cabinet, realizing perfect match by computer, for efficient anti-starting mark procedures.



电子卷取  
Electronic Take-up



电子送经  
Electronic Let-off

## 快速改变幅宽 / Quick Change Reed Width



织机左右两侧，所有调整幅宽时需要移动的部件都固定于同一支座之上，因此，在其调整幅宽时，只需简单松开若干螺丝就可随意调整位置。

On both sides of the machine, all required moving parts to adjust width are fixed on the same bracket, therefore, the freely width adjustment can be achieved by only simply loosening the screw.

## 规格及配置 / Specifications and Configurations

幅宽	190cm、210cm、220cm、230cm、280cm、340cm、360cm		
转速	750R.P.M (幅宽190cm)		
主驱动	变速马达直接驱动 (专利)		
开口装置	史陶比尔2658B电子多臂机, 最多20页综框	电子综平时间设定	多臂机花型由电控箱编辑
送经	独立伺服电机驱动, 张力传感器检测经纱张力, 双后梁结构	盘片直径: Ø805mm、Ø1000mm	
卷取	独立伺服电机驱动, 双辊加压装置	机内最大卷布直径Ø600 mm	
选色	独立电机驱动4-6色选色, 最多8色	选色时间及花型编辑由电控箱设定	
储纬	定鼓式高速储纬器, 共轴张力调节器调节张力, 标准4个, 最多8个可移动式组合纱架		
绞边	双侧独立电机驱动, 绞边时间由电控箱设定		
寻纬	自动寻纬装置, 可全平综或半平综停车		
润滑	独立的油泵电机驱动强制循环润滑装置	带油温、油压、堵塞保护	
控制	真彩10寸触摸屏人机界面, 六色指示灯	32位主控系统, 全封闭箱体	双侧操作按钮设计

Reed Width	190cm、210cm、220cm、230cm、280cm、340cm、360cm		
Machine Speed	750R.P.M (Reed Width190cm)		
Main Drive	Directly driven by variable speed motor (patent)		
Shedding Motion	Staubli 2658B electronic dobby, up to 20 pages of heald frame	Electronic heald leveling time setting	Dobby pattern edited by the electric cabinet
Let-Off Motion	Driven by independent servo motor, warp tension detected by sensor, double back rest structure	Disc diameter: Ø805 mm, Ø1000 mm	
Take-Up Motion	Driven by independent servo motor, double rollers pressurized device	Max. cloth roller diameter Ø600 mm	
Color Selection	Independent motor driven, 4-6 colors, up to 8 colors	Color selection time and pattern edit set in the electric cabinet	
Weft Accumulators	High speed drum weft feeder, coaxial tensioner to adjust tension, standard 4, up to 8 Moveable assembly accumulator frame		
Selvage	Double sides, each driven by independent motor, selvage time is controlled by control cabinet		
Pick Finding	Automatic pick finding, full leveling or semi-leveling stop		
Lubrication	Forced circulation lubrication device driven by independent oil pump motor	With oil temperature, oil pressure, jam protection	
Control	10 inches true color touch screen HMI, six color indicator light	32-bit master control system, fully enclosed cabinet	Both sides push button design

注：如规格有调整 恕不另行通知  
Notes: The specifications are subjected to revise without prior notice