

To be No. 1 Global One-Stop Mall in Dump Truck Field

European Truck Products



台州永暢液壓機械有限公司
Taizhou Eternal Hydraulic Machine CO.,Ltd

COMPANY PROFILE



Eternal Hydraulic belongs to Eternal Group, which is a International Well-known Professional Hydraulic Enterprise with 6 Own Manufacturing Bases, and we will complete our 12+ Manufacturing Bases in future 5 years to become the No.1 Hydraulic Alliance Group Enterprise.

Eternal Hydraulic are integrating Design&Develop&Manufacturing&Marketing for Hydraulic Components, and with more than 16+ years experience in Hydraulic Field.

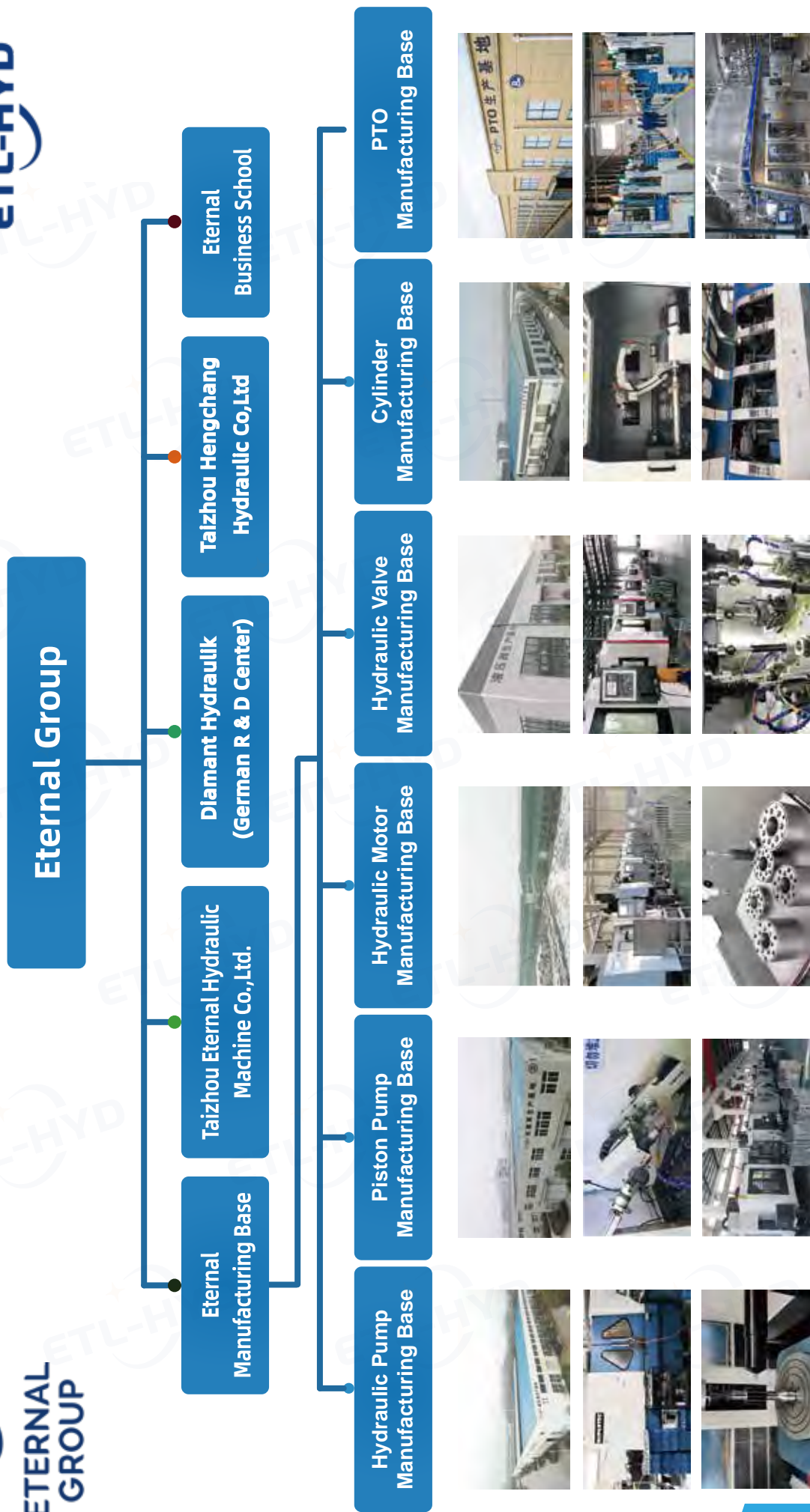
Eternal Hydraulic commit ourselves to the No.1 Global One-Stop Mall in Hydraulic Field, Our products are widely used in Agricultural Machinery, Forestry Machinery, Dump Trucks & Special Vehicles, Municipal Sanitation Machinery, Construction Machinery, Logistics&Forklift Machinery, Industrial Equipment, Mining machinery, Marine Machinery and Military Machinery etc, with 98% Good Quality&Price Feedback from market.

Eternal Hydraulic can be used in all Equipments which need Hydraulic Power.

Eternal Hydraulic keep good cooperative relationship with most of International Well-known Hydraulic Companies to provide best Service to our all regular customers.

Eternal Hydraulic firmly believes that **"Only the Best can Satisfied the Best"**, become the First and Best Purchase Choice of Hydraulic Components in all over the World.

Inviting all ability Partners to join in us to complete **86+** Strategic Partners in all over the World.



6+ Own Manufacturing Bases 1,400+ Workers Field Area > 220,000m²

Tipping Wetkit Parts



SIDE MOUNTED TRACTOR WETKIT



REAR MOUNTED TRACTOR WETKIT



TIPPER TRUCK CRADLE WETKIT



MOVING FLOOR TRACTOR WETKIT



CYLINDER

Higher operating pressure
Standard and heavy duty "HD" versions
> **faster, shorter cycle time**

TIPPING VALVE

Cylinder mounted optimised control
> **safer**

COVER & LIFTING BRACKET

Forged steel and cast iron
Different bearing options available
> **lower weight**

KNOCK OFF

Precise actuation
Robust design
Easy installation
> **safer**

CHASSIS BRACKET

Cast iron
Different bearing options
> **lower weight**

CRADLE

Standardised kits Improved hose management
> **easy installation & mounting**

PUMP

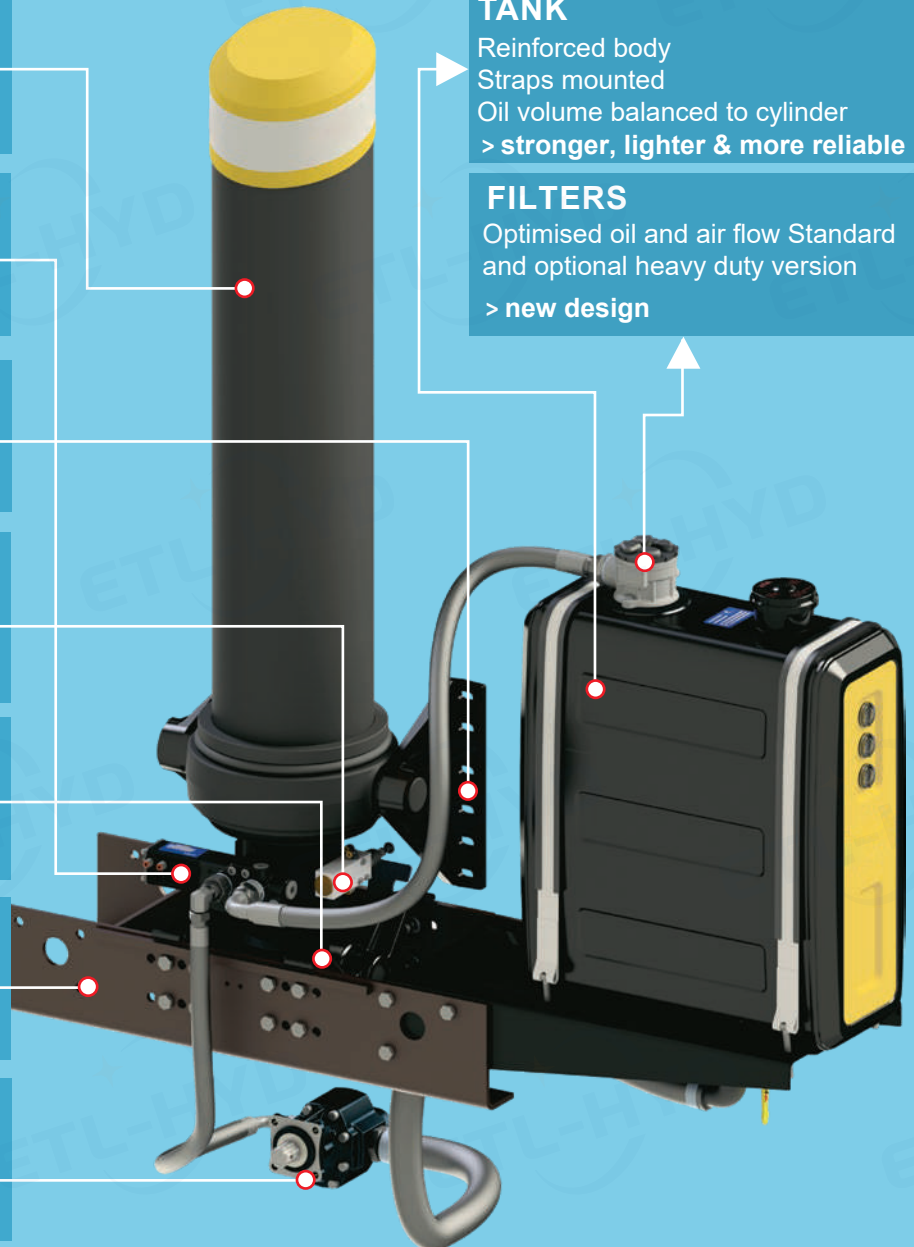
High pressure
Durability
> **faster**

TANK

Reinforced body
Straps mounted
Oil volume balanced to cylinder
> **stronger, lighter & more reliable**

FILTERS

Optimised oil and air flow Standard and optional heavy duty version
> **new design**



Tipping Cylinder



FEE Cylinder

Our pin type FEE cylinders are characterized by the pin type connection. This fitting method offers easy installation and side load resistance at an increased working pressure of 250 bars. The standard range consists of cylinders with a first stage diameter from 110 to 226 and a stroke ranging from 2785 to 9030. 1DA Cylinders are the solution for the bodies that need that extra support to bring the body down. With extra weights on the back ends, a double acting piston stage, helps to get the body over the gravity point. Once the piston does its job, gravity will take over, and finish the cycle.



FC Cylinder

FC telescopic front-end cylinders are primarily designed for straight headboard dump trucks with a capacity range of over 100 tons tipping weight. Our trunnion type FC cylinder is lightweight, strong, maintenance free and offers the most added stability to the tipper.

FSE Cylinder

Our spherical type FSE cylinder offer the highest durability to ensure optimal tipping for trucks. FSE cylinder is lightweight, uses less oil and therefore tips and lowers faster. The FSE cylinder is generally used when the headboard is slanted (angled).



FE Cylinder

FE cylinder is lightweight, strong, stable and maintenance free and typically used when the headboard is slanted (angled). The tipping capacity for FE cylinders ranges up to over 100 tons. Our trunnion type FE tipping cylinders bring reduced weight and faster tipping to on-road rigids and (semi-) trailers.



EF Cylinder

Inverted cylinders are the way to optimize the space in a trailer with removing the doghouse. High capacity, and strokes up to 281" keep up with the big jobs. Hard chromed largest & smallest stage keep the unit protected.



Code system tipping cylinders

FC A191 - 5 - 07130 - 000 - K0343 - XX

FC	A	191	5	7130	000	K0343	XX	
FC								Cylinder type description
	A							Alpha cylinder range
		191						Effective diameter first stage
			5					Number of extensions
				7130				Total stroke in mm (pull-out incorporated)
					0			Code E1 concerning fitting to base
					0			Code E2 concerning fitting to hydraulic system
					0			Code E3 concerning fitting to body
						K0343		Closed length
							XX	Other options

Cylinder type description

- FC - front-end cylinder with outer cover
- FE - front-end cylinder with piston eye
- FEE - front-end cylinder with piston eye and bottom eye and pin
- FSE - front-end cylinder with piston eye and bottom eye
- FCE - front-end cylinder with outer cover and bottom eye

Code E1 concerning fitting to base

- 0 standard trunnion at standard position
- 2 double eye trunnion with bush (FEE)
- 4 single spherical eye (FSE)

Code E2 concerning fitting to hydraulics

- 0 standard inlet at standard front position
- 1 standard inlet at non-standard front position
- 7 standard inlet at side

Code E3 concerning fitting to body

- 0 standard cover
- 1 standard spherical eye
- 2 fixed eye with bush
- 4 non standard cover
- 9 special cover or piston



For high pressure and long continuous operation we strongly recommends using a piston pump characterized by high performance and efficiency. Bent axis design assures slim external dimensions and low noise level operation. These pumps are typically used for heavy and demanding applications where long operation at high pressure is required such as cranes, hook and skip loaders, moving floors, high pressure tippers and many others. The pumps are equipped with safety drainage system, the rotation direction can be easily changed without any special additional tooling. Our pumps are known for robust design and highest quality proven in several demanding applications.



XPi PISTON PUMP

XPi 12, XPi 18, XPi 25, XPi 32, XPi 41, XP50, XPi 63, XPi 80, XPi 108, XPi 130

Displacement: 12~130 ml/r
Rated Pressure: 380 bar
Maximum Pressure: 420 bar



EOX PISTON PUMP

EOX34, EOX47, EOX64, EOX84, EOX107

Displacement: 34~84 ml/r
Rated Pressure: 210 bar
Maximum Pressure: 250bar



A17FO PISTON PUMP

A17FO23, A17FO32, A17FO45, A17FO63, A17FO80, A17FO107

Displacement: 23~107 ml/r
Rated Pressure: 350 bar
Maximum Pressure: 400bar

- Gears are produced with the highest attention to create perfect match to reduce internal leakage and noise level to minimum
- Special sleeve bearings provide optimum alignment of gears, so that the clearance between the teeth is held in a fixed position to guarantee high performance and efficiency
- Side sealing plates designed to ensure maximum efficiency with pressure up to 250bar
- Special bearings - withstand radial and thrust loads at heavy duty applications
- Design and material used, provide high structural strength to match high pressure standards

EHY GEAR PUMP

Displacement: 20~113 ml/r
Working Pressure up to 350 bar



EHY30



EHY35



EHY40



EHYC35



3 Bolt



4 Bolt

SIMPLE AND MULTIPLIED POWER TAKE-OFFS



POWER TAKE-OFFS FOR AUTOMATIC TRANSMISSIONS



POWER TAKE-OFFS FOR ZF



Gearbox



TIP CONTROLS

PROPORTIONAL 1 & 2 SECTIONS TIP CONTROL



Single and dual section pneumatic controls that are small, lightweight with compact casted body that can easily be mounted. This design offers multiple mounting options for flexibility in operation.

- Tipping only option control
- Tipping + PTO option controls
- Ergonomic designed hand lever
- Proportional lowering

MULTI SECTION TIP CONTROLS



Multi-sectional controls are used to control the tipping cylinder and a number of additional functions, such as opening of the rear door, sheeting systems, side boards and others. HYVA can offer sets of controllers that can be composed to the needs of given application for the required number of control sections.

- Slim 3 way modular design
- Multiple controller actuation options (Double acting 4 way, Single acting 2 way, PTO on-off)
- Modular design for easier custom configuration

HT VALVES

BENEFITS

- Safer operation due to unique design
- Fixed working pressure concept with replaceable cartridges
- Better precise control of tipping operation
- Proportional operation of lowering for precision and safety,
- Longer lifetime with hardened spool
- Possibility to mount directly on the cylinder or oil tank
- Acting as hose burst valve if mounted on the cylinder directly
- Adjustable lowering speed

HT1220-P1"-TNK - HT1220-P1"-SAE

TNK



SAE



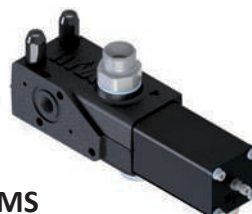
MS



HT2220-P1"-TNK-MS (MECHANICAL SWITCH)

HT2220-P1"-TNK-AS (AIR SWITCH)

MS



AS



HT1150-P3/4"-TNK/SAE - HT1150-P1"-TNK/SAE



MULTI SECTION TIPPING VALVES

For the tipping applications with additional hydraulic option HYVA offers suitable multi section valves, such valves can be equipped with up to 4 sections. The sections can be chosen to cover single or double acting applications, they are air controlled with adjustable working pressure. The sections are capable to work with oil flows in range of 80-160 l/min.



KNOCK OFF VALVES

KNOCK OFF VALVE - STD



Knock off valve STD is mounted on the cylinder cradle, it is delivered with a special bracket to allow easy installation and precise setting of this limiter. It is pneumatically operated, the mechanical adjustment allows it to be used with full range of HYVA front cylinders. Usage of this valve assures precise operation and smooth limitation of the stroke which results in significant increase of the cylinder and hydraulic lit lifetime.

KNOCK OFF VALVE - HD



Knock off valve HD can be mounted directly on our Alpha HD cylinder with a specially prepared bracket. The HD version features a longer piston stroke offering a smooth and precise deceleration of the tipper cylinder. The reinforced HD version is dedicated to the most demanding applications in heavy working conditions.

BENEFITS

- Increased the lifetime of the complete hydraulic system and the cylinder
- Easy installation and adjustment of the valve
- Increased tipping speed allowed with knock off installed
- Fine tune the exact tipping angle

BENEFITS

- Size ranges from 20 to 124 cm³/rev
- Working pressure up to 250 Bar
- Maintenance free due to self-priming and minimal number of components.
- Trouble-free start-up at low temperatures (temperature of the oil -40°C to +80°C)
- Strong, cast iron pump housing, reinforced bearings and forced lubrication
- The high pressure at low speed
- The ability to change the direction of rotation (Bi rotational)
- High power to weight ratio

SIDE MOUNTED TANKS (SM)



CRADLE MOUNTED TANKS (CM)



TOP FLANGE MOUNTED TANKS (TM)



REAR MOUNTED TANKS (RM)

