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FROM THE INVENTOR AND WORLD MARKET LEADER
TIRE PROTECTION AND TRACTION CHAINS SINCE 1943



## **TPC About**



#### WHAT IS A TIRE PROTECTION CHAIN?

A tire protection chain (TPC) is a closed mesh of high alloy, drop-forged steel wear links that wrap around the tire to protect the tread and sidewalls. The flexible nature of the mesh enables the chain to adjust and fit snugly against the tire as it deforms during loading or hauling operations. The chain has highly efficient self-cleaning properties that prevent the mesh from becoming filled and clogged; thus increasing the machine's productivity by continually providing the best possible traction.

#### WHY TPC?

By protecting tires from excessive abrasion, punctures, and sidewall damage, ERLAU TPC saves thousands of dollars in tire replacement costs and assures full productivity. Tire protection chains have been developed and perfected for over 75 years by working closely with owners and operators of wheeled loaders and dump trucks. Through ongoing investments in state-of-the-art production facilities and quality control labs all over the world, ERLAU has achieved paramount success in the tire protection chain industry. ERLAU offers a wide range of products designed to match the challenges of various site conditions. For your confidence, ERLAU experts will be on hand from your initial inquiry through delivery and installation. We also offer routine checkups and will be on-call for the life of your tire protection chain.

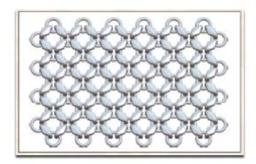






# TPC Systems

#### 2 SYSTEMS

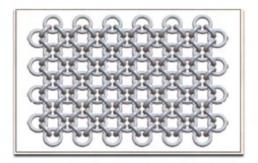


**RING-LINK SYSTEM** 

Drop-forged wear links.

Tried and tested technology.

Wide range of wear links.

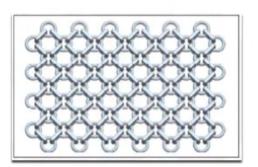


**RING-RING SYSTEM** 

Drop-forged wear rings.
Perfect tire protection
giving excellent chain life
on very abrasive materials.

#### **3 CHAIN MESH CONFIGURATIONS**

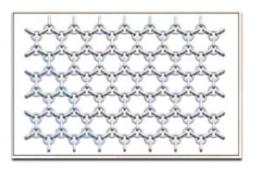
#### **PROTECTION**



**FELS (4X4)** 

All around tire protection for mining, quarrying, slag, and recycling operations.

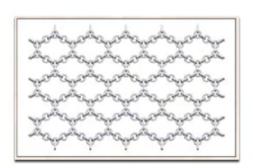
#### **PROTECTION + TRACTION**



**GARANT (6X6)** 

Greater traction and safety on gradients and wet or slippery surfaces.

#### **TRACTION**



#### **GARANT (10X10)**

Greater traction and safety on snow, ice, and slimy surfaces.



#### **OPEN PIT / UNDERGROUND MINES**

## In open pit or underground mines, sharp edged stones and abrasive surfaces can destroy tires quickly.

When it came to laying down the planet's mineral resources, Mother Nature could have been more considerate. Diamonds in a freezing arctic lake; copper and gold high in the South American Andes; iron ore in the Australian desert; coal seams deep underground; complex deposits--these are just some of the challenges confronting companies engaged in winning the materials, both common and rare, essential to today's living.

In modern mining and quarrying, old-fashioned methods have been superseded by sophisticated machines that take giant bites out of the ground and haul them away for crushing and refining. Given the high monetary investments made for these machines, optimum productivity is the core requirement and any unscheduled downtime is an unwanted and costly inconvenience. Where wheeled machines are used for stripping, loading, hauling, and stockpiling, ultimately the operation's profitability will depend upon the tires. Without these tires, the machine becomes nothing more than an immobile and complex arrangement of metal components. Underground mining, tunneling, and caving are among the most demanding activities. For mobile operations, miners select ERLAU TPC to ensure traction and safety and to provide low-profile tires with total all-around protection from abrasion and sidewall damage.









#### **OPEN PIT / UNDERGROUND MINES- WHICH TPC IS BEST?**

RING DIAMETER	CHAIN TYPE		LINK WIDTH LINK HEIGHT	FELS	MESH OPENING	MINIMUM CLEARANCE	TIRE SIZE
11 MM	0	SUPER X11	20 MM 35 MM		54 MM	50 70 85	from 8.25-15 to 26.5-25
14 MM	41110	DURO X14	22 MM 51 MM		63 MM	60 85 95	from 15.5-25 to 35/65-33
14/16 MM	60	ENDURO	35 MM 51 MM		70 MM	70 100 95	from 12.0-24 to 26.5-25
16 MM	60	JUMBO PLUS X16	43 MM 60 MM		67 MM	75 100 95	from 20.5-25 to 40/65-39
16 MM		TITAN X16	40 MM 60 MM		70 MM	75 100 95	from 20.5-25 to 40/65-39
19 MM		TORO X 19	44 MM 60 MM		63 MM	75 100 95	from 17.5-25 TO 45/65-45
19 MM	41110	IMPERIAL X19	30 MM 67, 5 MM		76 MM	85 120 115	from 23.5-25 to 45/65-45
19 MM		GIGANT PLUS X19	47 MM 70 MM		76 MM	85 120 115	from 23.5-25 to 45/65-45
22 MM		CROWN X 22	36 MM 76 MM		93 MM	100 150 115	from 45/65-45 and bigger
23 MM	60	GRANIT PLUS X23	54 MM 80 MM		91 MM	100 150 115	from 45/65-45 and bigger
23 MM		TITAN 75	50 MM 77 MM		91 MM	100 150 115	from 45/65-45 and bigger
13, 2 MM	0	R 69 S	18 MM 56 MM		33 MM	75 90	from 12.0-24 to 35/65-33
14 X 18 MM	0	R71 S	20 MM 67 MM	Con Control	41 MM	85 100	from 23.5-25 to 45/65-45



#### **QUARRIES**

## In quarries, abrasive surfaces and sharp-edged stones are a great hazard for tires.

Quartz, silica, dolomite, basalt, and granite are just some of the causes of excessive tire wear. Flint, slate, shale-like rocks, and demolition debris can cause punctures and deep sidewall cuts. One minute your loader crowds into the rockfall and the next moment it is slumped, immobile, and you are on the phone looking for a temporary fix or a replacement tire. In small operations, this could put your entire production on costly standby. In these instances, when efficiency is crucial, ERLAU tire protection chains are required to create a barrier between your tires and the ground.





#### **QUARRIES- WHICH TPC IS BEST?**

RING DIAMETER	CHAIN TYPE		LINK WIDTH LINK HEIGHT	FELS	MESH OPENING	MINIMUM CLEARANCE	TIRE SIZE
11 MM	<b></b>	SUPER X11	20 MM 35 MM		54 MM	50 70 85	from 8.25-15 to 26.5-25
14 MM	1000	DURO X14	22 MM 51 MM		63 MM	60 85 95	from 15.5-25 to 35/65-33
16 MM	000	ROYAL X16	26 MM 56,5 MM		69 MM	75 100 95	from 20.5-25 to 40/65-39
16 MM	6	JUMBO PLUS X16	43 MM 60 MM		67 MM	75 100 95	from 20.5-25 to 40/65-39
16 MM		TITAN X16	40 MM 60 MM		70 MM	75 100 95	from 20.5-25 to 40/65-39
16 MM	60	ECOTRAC X16	16 MM 50 MM		78 MM	75 100 95	from 20.5-25 to 40/65-39
19 MM	60	ECOTRAC X19	17 MM 60 MM		76 MM	85 120 115	from 23.5-25 to 45/65-45
19 MM	65	TORO X19	44 MM 60 MM		63 MM	75 100 95	from 17.5-25 to 45/65-45
19 MM	4440	IMPERIAL X19	30 MM 67,5 MM		76 MM	85 120 115	from 23.5-25 to 45/65-45
19 MM	<b>3</b>	GIGANT PLUS X19	47 MM 70 MM		76 MM	85 120 115	from 23.5-25 to 45/65-45
13,2 MM	0	R69 S	18 MM 56 MM	٩	33 MM	75 90	from 12.0-24 to 35/65-33
14 X 18 MM	0	R71 S	20 MM 67 MM	4	41 MM	85 100	from 23.5-25 to 45/65-45
14 X 18 MM	0	R71	20 MM 67 MM	XX	83 MM	85 100	from 26.5-25 to 45/65-45



#### HOT SLAG / SCRAP METAL / DEMOLITION

## Working with hot smoldering slag can scorch tires and can lead to lost equipment and risks human lives.

Steelmaking creates one of the toughest environments for men and machinery. Pot carriers are used to carry ladles of molten slag to the dumping pit, where wheeled loaders transfer the still fiery slag to the recycling location. This recovers residual steel for re-smelting and limestone cinder for block-making. Whether liquid or cooling, slag is an unforgiving material subjecting tires to heavy abrasion from the cinder. Tire protection chains are specifically developed, specially hardened forged wear links used to ensure optimal tire protection, even on hot, burning surfaces.

### Recycling scrap metal and demolished buildings place enormous demands on loader's tires.

Anyone who has visited a demolition site, or scrap metal reprocessor, will be acutely aware of the hidden hazards faced daily by the tires of wheeled loaders. In demolition, a wheeled loader is used to feed the crusher hopper and load the tipper trucks. Every time the loader crowds into the demolition heap, there is a risk that the tire will be pierced by a concealed rebar. Similar damage can occur when loading flattened cars into the baler or lifting tangled pieces of metal for smelting. In each instance, a burst tire can bring production to a standstill while a replacement is found. A tire protection chain will encase the vulnerable tread and sidewall of the tire with an impenetrable mesh. With deadlines to meet, the loader operator can be assured that any delay will not be due to the tires.









#### HOT SLAG / SCRAP METAL / DEMOLITION - WHICH TPC IS BEST?

RING DIAMETER	CHAIN TYPE		LINK WIDTH LINK HEIGHT	FELS	MESH OPENING	MINIMUM CLEARANCE	TIRE SIZE
11 MM	0	SUPER X11	20 MM 35 MM		54 MM	50 70 85	from 8.25-15 to 26.5-25
14 MM	60	ENDURO	35 MM 51 MM		61 MM	60 85 95	from 12.0-24 to 26.5-25
16 MM	60	JUMBO PLUS X 16	43 MM 60 MM		67 MM	75 100 95	from 20.5-25 to 40/65-39
16 MM		TITAN X 16	40 MM 60 MM		70 MM	75 100 95	from 20.5-25 to 40/65-39
19 MM	1000	IMPERIAL X 19	30 MM 67, 5 MM		76 MM	85 120 115	from 23.5-25 to 45/65-45
19 MM	60	GIGANT PLUS X 19	47 MM 70 MM		76 MM	85 120 115	from 23.5-25 to 45/65-45
14 X 18 MM	0	R71 S	20 MM 67 MM		41 MM	85 100	from 23.5-25 to 45/65-45





#### SAFE TRACTION FOR PRODUCTIVITY

At some sites where the terrain is slippery, or where trucks have to contend with dangerous road conditions, poor traction can be a major problem.

Wrestling to control a loaded truck with a mind of its own is exhausting for the operator. It can reduce concentration, and risks losing the truck and all of the collateral damage that may be involved.

Where the tire tread alone cannot provide an adequate grip, ERLAU traction chains are essential for the safe operation of the equipment. Available in several sizes, these chains are suitable for a wide range of applications including wheeled loaders, dumpers, motor graders, wheeled dozers, scrapers, and logging machines.









#### **TRACTION - WHICH TPC IS BEST?**

RING DIAMETER	CHAIN TYPE		LINK WIDTH	GARANT	MESH OPENING	GARANT	MESH	MINIMUM	TIRE SIZE
DIAMETER			LINK HEIGHT		OPENING	10	OPENING	CLEARANCE	SIZE
11 MM	0	SUPER X 11	20 MM 35 MM		108 MM	The state of the s	161 MM	50 70 85	from 8.25-15 to 26.5-25
14 MM	ditti	DURO X 14	22 MM 51 MM	T	120 MM	A.	187 MM	60 85 95	from 15.5-25 to 35/65-33
16 MM	11111	ROYAL X 16	26 MM 56, 5 MM	X	133 MM	1	211 MM	75 100 95	from 20.5-25 to 40/65-39
19 MM	nituto O O	IMPERIAL X 19	30 MM 67, 5 MM	X	150 MM	1	239 MM	85 120 115	from 35/65-33 to 40.0-57
22 MM	11111	CROWN X 22	36 MM 76 MM	X	181 MM	-	287 MM	100 150 115	from 45/65-45 and bigger
14 X 18 MM	0	R71	20 MM 67 MM	X	83 MM			85 100	from 26.5-25 to 45/65-45
11 MM	186	TERRA PLUS X 11	20 MM 45 MM	Andrew .	114 MM	X X	176 MM	50 70 85	from 8.25-15 to 26.5-25
14 MM	186	TERRA PLUS X 14	26 MM 49 MM	Mark.	128 MM	X. A.	198 MM	60 85 95	from 15.5-25 to 35/65-33
16 MM	133	TERRA PLUS X 16	28 MM 54 MM	Sandan Sanda	133 MM	Xapox.	211 MM	75 100 95	from 20.5-25 to 40/65-39
19 MM	<b>3</b>	TERRA PLUS X 19	34 MM 65 MM	And the	150 MM	Lopez	239 MM	85 120 115	from 35/65-33 to 40.0-57
22 MM	133	TERRA PLUS X 22	39 MM 76 MM	A STATE OF THE STA	181 MM	Mayor.	287 MM	100 150 115	from 45/65-45 and bigger

## **TPC Innovations**



#### **ERLAU INNOVATIONS: SAVING TIME AND MONEY**

#### **EASYLOCK**

Installation of a tire protection chain requires a set of special rings to "stitch" the two ends together. Closing these rings involves pins, hammers, and the risk of flying metal fragments, squashed thumbs, and bad language. If the pins become corroded, removing the rings requires flame-cutting- a dangerous operation next to tires. To save time, money, and increase safety, ERLAU, the world's leading tire protection chain brand, has introduced EASYLOCK: a connecting ring that can be fitted and removed quickly and easily. Once the ring is passed through the wear links, the hasp is pushed over the two prongs and secured by a 90-degree turn of the integral locking device with an Allen key. EASYLOCK then remains in place until removed in the same simple procedure. Either delivered with a new set of ERLAU tire protection chains or available separately, EASYLOCK can be retrofitted to any 19mm or 23mm TPC.



A product is only as good as its support.



## **TPC Innovations**



#### MARKET LEADER THROUGH INNOVATIVE TECHNOLOGY

#### **CMS CHAIN MONITORING SYSTEM**

It is not by chance that ERLAU TPC has come to dominate the world market for tire protection chains. Modern, state-of-the-art facilities ensure consistent weld integrity, while the sophisticated alloys create durable, longer-lasting, lighter, energy-saving wear links. With our expert installation and product support, TPC is relied upon by many professionals in a range of industries. Affirming confidence in its technology, ERLAU TPC now offers CMS-the first tire chain monitoring system. An embedded RFID device records the productive history of the TPC including batch number, test results, installation, maintenance, incidents, operating hours, and much more. The data is collected in a database for download where it can then be interpreted by the plant manager for budgeting, quality control, and maintenance purposes.





## **TPC Innovations**



#### **ADVANCED ASSEST PROTECTION**

ERLAU tire protection chains are essential to protect and preserve valuable assets and, in doing so, save their operations a lot of money each year. Rapid deterioration of earthmover tires through excessive abrasion and sudden, total loss because of punctures or sidewall cuts has always been an expensive problem for mines, quarries, and other heavy industries.

When limited availability sees plant owners compelled to stockpile spare tires "just in case," ERLAU tire protection chains, which can extend a tire's useful life by a factor of ten, have become the essential accessory relied upon to ensure wheeled plant availability and fulfill production targets. Where load and haul is a central component of the operation, optimizing mobile plant availability is the key to success and this success depends on skilled staff and a rigorous maintenance schedule with particular attention to the tires.









GLOBAL SERVICE- OUR STRENGTH. YOUR ADVANTAGE. WORLDWIDE SERVICE AND SUPPORT.



## QUALITY AND SERVICE YOU CAN RELY ON. SINCE 1943.

#### **RUD CHAIN USA**

840 N 20th AVE Post Office Box 367 Hiawatha, IA 52233

Phone: 800-553-7993 Fax: 877-215-7209

sales@rudchain.com www.rudchainusa.com