

KALYANI MAXION WHEELS PVT. LTD.

A division of IOCHPE-MAXION



KALYANI MAXION WHEELS PVT. LTD.

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Inventive Technology - Winning Performance



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Introductory note

We should like to ensure convenient handling of your Kalyani Maxion Wheels catalogue, thus simplifying the process of ordering as much as possible. As wheels customer and vehicle owner you will have to consciously observe the information and safety instructions given in both documents in order to be able to prove at any time that you have exercised due care - as is imposed by the legislator - in handling wheels and tyres, also with a view to liability and road safety.

A Note on our behalf...

This catalogue is not but works of human being. Even though we made every effort to collect all data and specifications to the best of our knowledge and belief, occasional errors or faults never can be excluded. To say it in a nutshell: "Nobody is perfect".
Therefore: No responsibility is accepted.

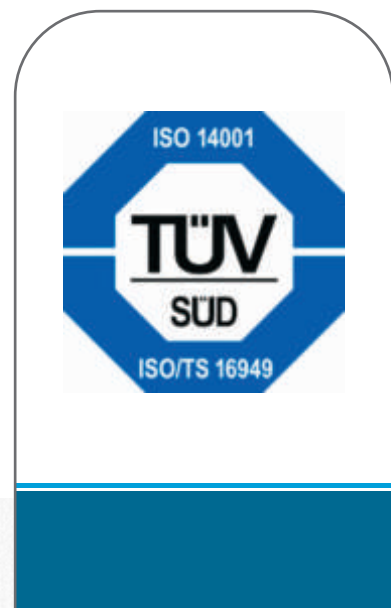
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Kalyani Maxion Wheels Private Limited is a subsidiary of Maxion Wheels International, USA. Maxion Wheels is a World Leader & Global Brand in wheel rim technology and supplies to leading automotive manufacturers like Daimler, General Motors, Ford, Toyota, Iveco and Volvo amongst others. The company manufactures Steel Wheels as well as Aluminum Wheels of Trucks, Trailers, Buses and Cars with state of the art technology.

Today, Maxion Wheels has developed a worldwide presence and customer base with 28 facilities and a presence in 15 countries on 5 continents sewing all major Original Equipment Manufacturers.

The Kalyani Maxion wheels plant is situated in Pune, India. The company manufactures Steel Wheels for light, medium and heavy Commercial Vehicles and has a manufacturing capacity of 1.3 Mn. wheels per year. The company's products are based on Kalyani Maxion design, in particular, the cold forming process. The products manufactured are of global standards and the plant has received ISO/TS 16949 certification from TUV.

Kalyani Maxion wheels Pvt Ltd's Global customers are Daimler, Volkswagon, Honda, Nissan, Volvo, Iveco, Scania, Daewoo, MAN and so on, where as the domestic customers are TATA Motors, Ford, Volvo India, Volkswagon, VECV, SML-Isuzu, Force Motors, Escorts, ACE, Fiat etc. Apart from this KMWPL is exporting wheels to various countries for after market applications.

STRONG PRESENCE INTO PASSENGER CAR WHEELS WITH A TOTAL COMMITMENT FOR QUALITY, LOWEST COST AND CUSTOMER SATISFACTION

With a capacity of 2 million wheels expandable to 4 million, Kalyani Maxion Wheels new facility is manufacturer of steel wheels for passenger cars, light trucks and SUV. KMWPL production facilities in India serve all major OEM customers worldwide. KMWPL offers advanced engineering capabilities for developing optimized products to meet our customers' specifications and market demands. A high variety of steel grades enables us to offer products which achieve the preferred targets, cost efficiency, weight optimization and high functionality.

Product Overview

Kalyani Maxion Wheels product and manufacturing capabilities for passenger cars and steel wheels ranges from up 13" to 19" in diameter and in widths from 3" up to 8". KMWPL offers the widest product line of wheel construction such as Weight Optimized - Conventional, Styled Drop Center, Versa Style® (High Vent), Semi Full Face (Bead Seat Attached) and Full Face Wheels to meet market and customer demands. Coating and finishing can be done for styling and application needs. We offer a variety of finishings from E-Coat Primers (Epoxy and Acrylic), Acrylic Top Coats. Every steel wheel is pre-treated prior to coating with an environmentally safe lead-free pre-treatment for world class corrosion protection.



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Beginning

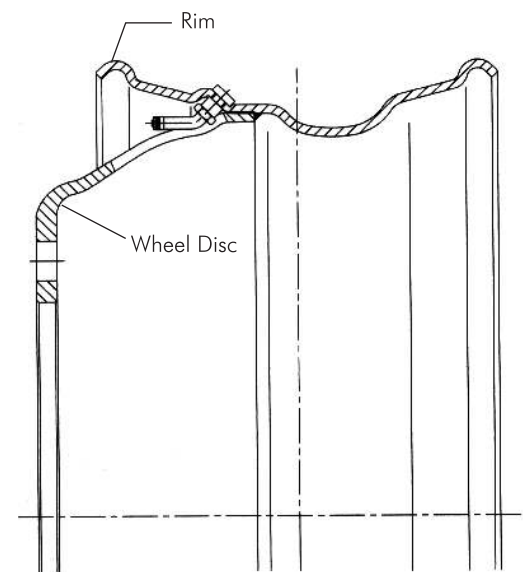
This catalogue has been prepared to help make your orders and understand exactly what you expect. To prove the safety of handling, fitting and using your wheel with other components of your vehicle like tyres, hubs is another objective of this document. Therefore; we have put all necessary information you will need. Since wheel is a safety part, it must be handled, fitted and used according to recommendations mentioned in this catalogue and your vehicle must be loaded and driven according to legislations.

What is a Wheel

Tubeless wheels made of high quality steel sheets include two main parts welded to each other which are the rim and the disc (Flange and lock ring are the parts used with flat base wheels and delivered separately). Tyre is fitted on the rim and disc fit this couple to the hub with studs.

Modern steel disc wheels essentially consist of rim and wheel disc. The rim serves, as seat of the tyre, the wheel disc connects the rim with the wheel hub.

The terms "rim" and "wheel" are often confused in colloquial speech. This may cause misunderstandings and lead to faulty deliveries in carrying out an order.

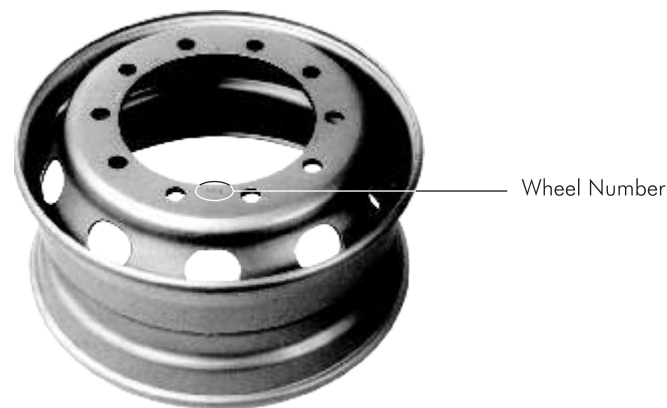


Marking of the wheels

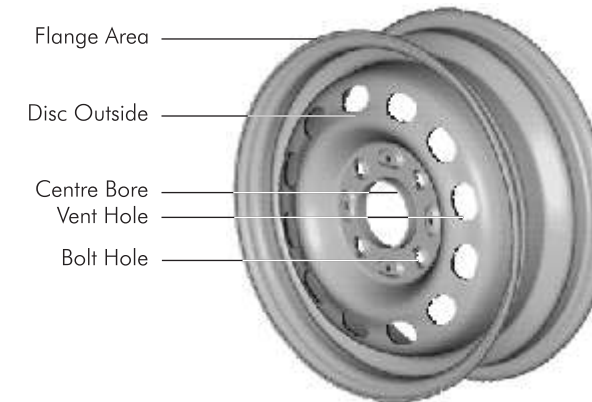
According to either DIN 7829 or ISO 3911 resp. all Kalyani Maxion wheels are marked with our trade mark, the wheel number, rim size and production date. This marking in some extent is shown on the front side of the disc (at least the wheel number and the production date) and partly on the rim surface at the side of the brake (preferably rim size and trade mark). Due to legal provisions or at the request of the customer, further indications may be stamped.

Wheel Number

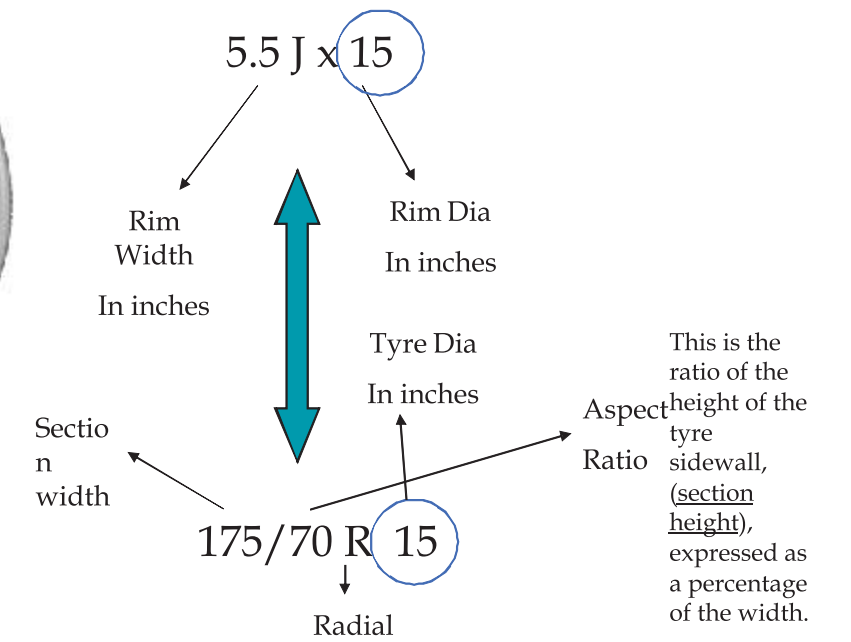
By means of the wheel number the wheel can unambiguously be allocated to the respective engineering drawing. It is affixed to every wheel, thus admitting an exact identification of the wheel in all technical details.



Wheel Disc And Rim

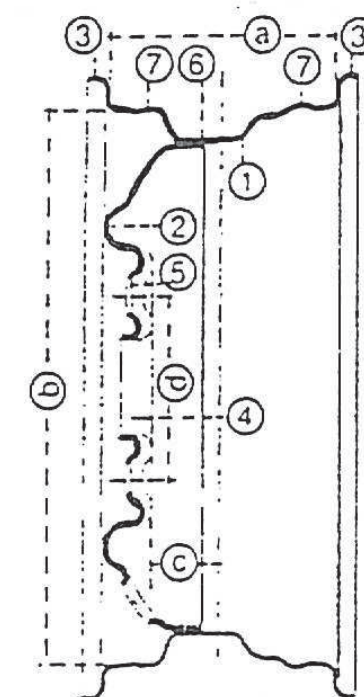
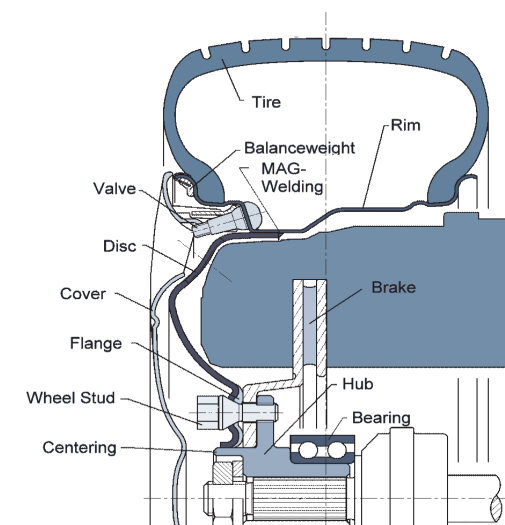


Terminology 5° Drop Centre



TECHNICAL DESCRIPTION OF WHEEL CHARACTERISTICS

Car Wheel General View



- ① rim
- ② disc
- ③ flange
- ④ centre hole
- ⑤ stud hole
- ⑥ well
- ⑦ hump
- a rim width
- b rim diameter
- c inset
- d pitch circle diameter

Orders and Inquiries

When placing an order you only need to indicate the wheel numbers listed in the tables below. In these tables you will also find all the technical data of the wheels.

For an inquiry of wheels, which are not indicated in this catalogue, we kindly request the following information:

- rim size (rim width and diameter),
offset or half dual spacing respectively,
maximum wheel load,
maximum speed,
single or dual tyres,
intended use (type of vehicle, service conditions),
axle and brake dimensions,
connecting dimensions as:
- centre hole diameter,
 - pitch circle diameter,
 - number of stud holes,
 - type of stud holes.

- Type of tyre (size, type, [tube or tubeless],
- load index,
 - ply rating,
 - speed symbol,
 - inflation pressure provided).

For a wheel of another manufacturer for identification the stamping, i. e. manufacturer, part-no. rim size etc. as well as the corresponding vehicle, must be indicated additionally. Also the sending of a sample or a drawing in which the above mentioned information and dimensions are indicated would be favourable in such a case.

We will do every effort to fulfil your demands.



Tyre Allocation and Wheel Load Carrying Capacity

The strength of each disc wheel is designed for a specific loading capacity. Rim and tyre combinations were designated to assure proper mounting and fit of the tyre to the rim.

Wheel load and cold inflation pressure, imposed on the rim and wheel may not exceed the rim and wheel manufacturers recommendations even though the tyre may be approved for a higher load or inflation. Tyre allocations and load carrying capacities for normal traffic are indicated in the catalogue for the intended service and rim sizes. Permitted tyre and wheel sizes can be taken from the data of the vehicle manufacturers. For request of load carrying capacities and allocations for deviated service conditions please contact us.

Rims

Rims serve as seat of the tyre. By means of the rim designation information can be obtained on dimensions and type of rim profile. It is composed of:
rim width
rim diameter
a sign placed between rim width and rim diameter show to which group a particular rim belongs.

The meaning of the sign is:

x = one piece rim as for example 15° drop centre rim

- = multipiece rim as for example flat base rim, semi drop centre rim or tapered bead seat rim

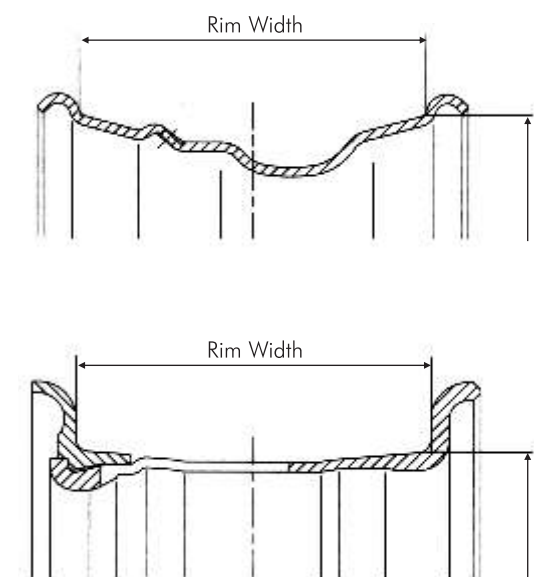
Additionally to rim width and diameter some rim sizes have a letter marking. This marking describes the type of rim flange and rim well.

Examples :

- | | |
|----------------|---|
| 22.5 x 9.00 | a 15° drop centre rim with a diameter of 22.5" and a rim width of 9.00" |
| 6.5 - 15 | a tapered bead seat rim with a rim width of 6.5" and a diameter of 15" |
| 6.50H - 16 SDC | a semi drop center rim with a rim width of 6.50" and a diameter of 16" |
| 5J X 14 H2 | a 5° drop center with dia of 14" rim width of 5" with double hump |

"Code number for nominal size in inches."

Caused by historical reasons the rim size designations (based on inch dimensioning system) today are still valid world wide for the most existing rims. Rims just as the pertinent tyres are standardised both DIN as well as ETRTO, ITTAC, JATMA, T & RA, ISO etc., and thus interchangeable under consideration of load carrying capacity.



Wheel Discs

The wheel disc serves as connection between rim and wheel hub. The part which attaches the hub flange or the brake drum respectively will be called as plane surface. The shape of the wheel disc is influenced by the form of the rim, axle connection, brake contour, brake cooling, fixing of the wheel cover, the requirement for high loading capacity along with low wheel weight, as well as request for attractive appearance (styling).

Fastening of the wheel and type of stud holes

The wheel connecting dimensions, as

- centre hole diameter
 - pitch circle diameter
 - number of stud holes
 - type of stud holes
- are specified in the tables.

In the column, type of stud hole designation according to EUWA" (Association of European Wheel Manufacturers) one distinguishes:

- cylindrical holes (without countersink)
- spherical type with countersink (uni- or bilateral)
- conical type with countersink (uni- or bilateral)
- spherical or conical type of countersink with a close-fit
- centre hole for double centering.

The corresponding dimensions and descriptions as well as other types of stud holes are to be found in the table. On these pages also the EUWA designations are opposed to the old Hayes Lemmerz short codes.

Hub centering

The hub centering is marked with letter "M" in the column "type of stud holes according to EUWA" and "MZ" in column "wheel type". In accommodation to the vehicle hub the hub centered wheels have a close-fit centre hole. The wheel is fastened by special wheel nut assemblies (flat seat captive washer nut) according to DIN 74361, part 3.

Stud Centering

For that you can find the letter "B" in the column "type of stud holes according to EUWA" and "BZ" in column "wheel type". For these wheels the fitting

and centering will be effected by spherical or conical washers and corresponding clamping nuts or by spherical or conical collar nuts according to DIN 74361, part 2.

Double Centering

Here the type of stud holes is indicated in the column "type of stud holes according to EUWA" by letter "M" with an additional short-code of the kind of countersink and "(MZ)" in column "wheel type". These wheels besides the centre bore with very close tolerance have additionally bolt holes with spherical or conical countersink and can be fitted with flat seat captive washer nuts as well as with spherical and conical nuts or spherical and conical washers respectively. When fitting double centered wheels on hub centered axles using flat seat captive washer nuts according to DIN 74361 part two special shaft inserts must be put on two opposed studs for wheel centering in circumferential direction. For double centered wheels the torque depends upon the clamping elements or the centering type of the axle respectively. If for example a double centered trailer wheel with the obligatorical washers as well as with flat collar nuts M 22 x 1,5 will be mounted on a stud centered axle, the torque is 550 Nm, when mounting on an hub centered axle by using wheel nuts M 22 x 1,5 with flat seat captive washer nuts the torque however is 650 Nm.

Offset

The offset "e" is the dimension from the rim centre to the attachment face of the wheel disc on the side of the hub. This dimension can be either positive or negative. The track width is determined by the distance of the outer hub face of the axle and the wheel offset.

The offset is called "positive", when the inner attachment face of the wheel disc, referred to the rim centre, is shifted to the outer side of the wheel. It is called "negative", when the inner attachment face of the wheel disc, referred to the rim centre, is shifted to the inner side of the wheel.

DROP WELL STEEL

Our decades of experience combined with our excellence in design and manufacturing of this product have enabled Kalyani Maxion to create the most mass-efficient designs possible. Nobody has produced more well attached steel wheels than Kalyani Maxion. We offer this wheel with various trim options, giving it excellent cross-platform flexibility.

By adding styling to the basic black steel wheel, Kalyani Maxion can create signature wheels that add visual impact to any car line. Styled well attached steel wheels allow for minimalized wheel trim and, as a consequence, minimal theft and warranty issues. Our use of materials such as ultra high strength steel, as well as our new manufacturing technologies.

BEAD SEAT (SEMI FULL FACE) STEEL

By attaching the disc, or wheel center, under the bead seat of the rim, Kalyani Maxion provides a wheel with maximized brake clearance on any given wheel diameter, as well as increased styling. Bead seat attached steel wheels are typically used where brake clearance precludes usage of drop well attached steel wheels. We can easily design these wheels for cross-platform usage, allowing our customers to decrease their investment costs.

FULL FACE STEEL

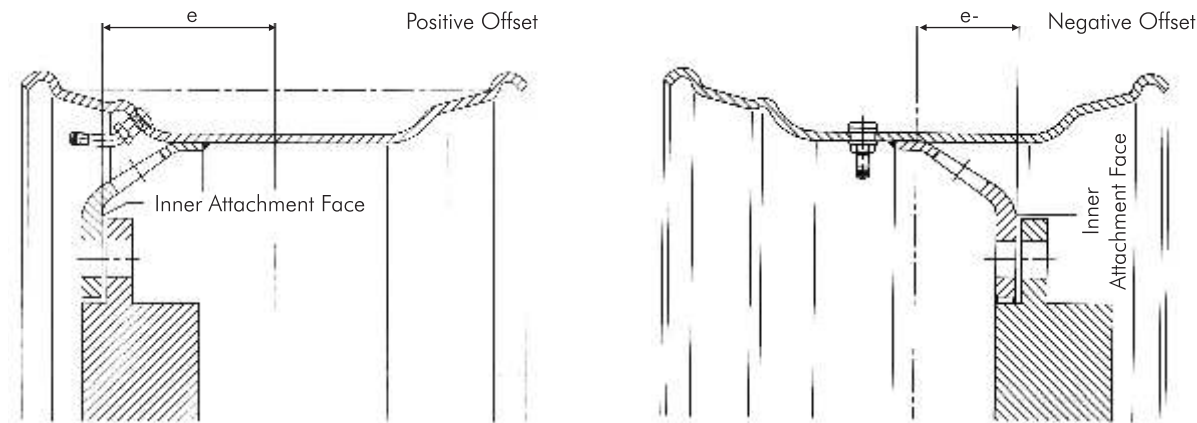
Maxion Wheels most commercially successful product innovation in steel wheel technology is the full face design, which offers numerous advantages and a bold look. The wheel is constructed by incorporating the curb-side flange into the disc, and then attaching it to the single flange rim with a 360° arc weld. The wheel offers increased brake clearance and styling over other steel wheels. Kalyani Maxion's proprietary attachment joint yields the lightest, most mass-efficient wheels available in the market.

VERSASTYLE® STEEL

Maxion Wheels newest innovation in steel wheels is our VersaStyle® High Vent Steel Wheel. This wheel construction brings many great attributes to the wheel market, including the ability to achieve cast aluminum wheel styling with a steel wheel and to support our customers' need for cross-platform flexibility. Maxion Wheels can tool up one VersaStyle® wheel to fit many applications, our ability to change vehicle wheel styling with only a trim change also allows our customers to make frequent styling refreshes. Not only do VersaStyle® wheels contribute to a vehicle's better appearance, but they also contribute to better performance by helping to cool the vehicle's running brake rotors.



Light Vehicle VersaStyle®

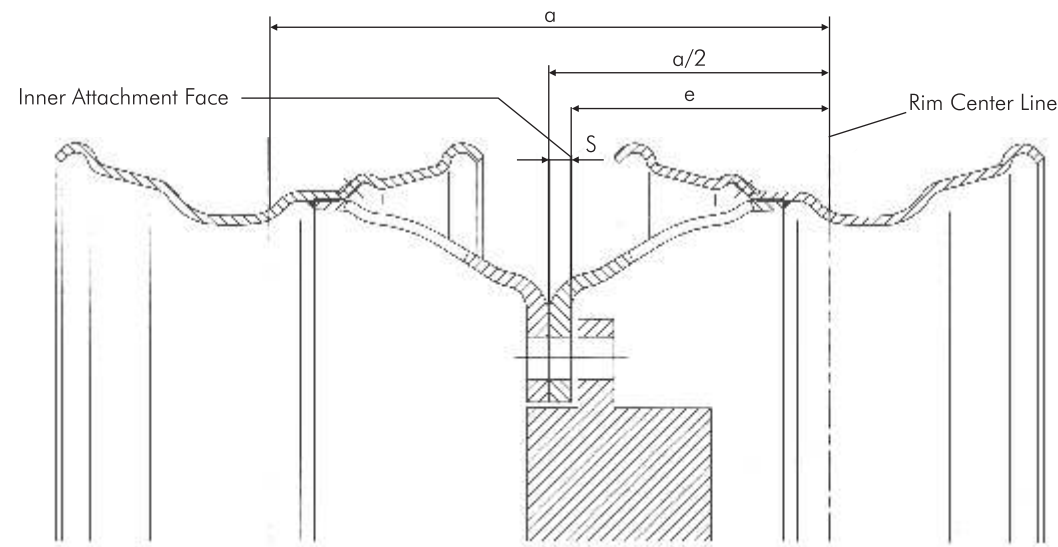


Half Dual Spacing

On dual wheels the "half dual spacing" ($a/2$) is the dimension from the rim centre to the outer disc attachment face.

This dimension depends on the demanded minimum dual spacing of the tyre used on the disc wheel. This value is specified in the pertinent DIN standards or in the tyre manuals and technical directives published by the tyre manufacturers. Dual spacing "a" is the distance of the two rim centres existing when dual tyres are used.

It is determined by:
 $2 \times (\text{offset "e" plus disc thickness "s"})$



Torques for Wheel Fastening

The torques to be used for the wheel screws or nuts respectively can be found in the prescriptions of the vehicle manufacturers. Tightening of fixing elements must be made stepwise crossway up to the prescribed torque. Cumbersome or corroding studs and nuts must be replaced. A schedule of "Maxion Wheels"-recommended torques under consideration of fastening as well as of material grades are indicated in the below mentioned table. Because hubs and wheels are adhered with prime coat and colour, according to our experience so far, these coats wear out a little during driving operation. Screws and nuts adapt too under charge during driving and need some time to find the correct position. On new vehicles and after each exchange of wheels it is indispensable to adjust the wheel nuts or the screws of all wheels after a short driving distance of about 50 or 100 km for perfect fit. Also later on a routinely control of the wheel fastening is necessary, especially, when service conditions of the vehicle are extremely strong.

torques in Nm			
		screw strength class 8.8*	screw strength class 10.9*
1. Wheel fastening with clamping elements according to DIN 74361, part 2			
1.1. spherical- and conical collar nuts, spherical collar screws			
	thread	M14 x 1,5	160
		M16 x 1,5	240
		M18 x 1,5	330
		M20 x 1,5	500
		M22 x 1,5	640
1.2. flat collar nut with washer			
	thread	M14 x 1,5	120
		M16 x 1,5	180
		M18 x 1,5	260
		M20 x 1,5	350
		M22 x 1,5	450
		M22 x 1,5	550
2. Wheel fastening with clamping elements according to DIN 74361, part 3			
2.1. flat seat captive washer nut			
	thread	M18 x 1,5	360
		M20 x 1,5	500
		M22 x 1,5	650

* According to DIN 74361 part 3 strength class of 10 respectively 10.9 according to ISO 898 is necessary for the nut and for the bolt.

Safety- and Service-Instructions

The wheel is a highly stressed component of the vehicle that may be subjected in service to extreme forces: therefore it is absolutely necessary to handle these parts with care and to pay particular attention the mounting, removal and maintenance in order to ensure safe operations and prevent possible labour accidents.

Never use parts of wheels which cannot be identified, even if they seem to have the correct functions and the identical dimensions.

Concerning multipiece rims, it happens again and again that in practice loose rings of different manufacturers and types of rims are mixed up with each other by inattention or negligence.

Irrespective of the fatal dangers that are incurred when the wrong ring is used for mounting the tyre, such mistakes do not only cause damage to the tyres, but also may lead to serious accidents because the load carrying capacity of such a wrong rim assembly is considerably reduced. Therefore only matching loose ring parts of one rim system

may be assembled. For purposes of distinction, the two-piece rim assembly is identified by "2 P", the four-piece assembly by "4P".

In order to avoid right from the start confusion of loose rings of one manufacturer with another one, all components of the Kalyani Maxion rims are stamped with

- rim size (e.g. 2P 20-8.5)
- reference No. (e.g. 3847-2)
- manufacturer (HL 6 or Lemmerz)
- production date (AP)

The reference numbers of the loose ring parts belonging to the respective rim assembly are to be found in the tables.

For safety reasons, the tapered bead seat ring may on no account be omitted in the four-piece rim assembly. For safety reasons you should keep attention that the space between the ends of the dismantled lock-ring is max. 8 mm and for dismantled splitted side-rings a distance of 20 mm should not be exceeded. A replacement of overstretched rings is absolutely necessary.

The dimensional correspondence of axle and wheel connection as well as utilization of the correct attachment parts and numbers, as given by the axle, at the torque prescribed are decisive for fail-safe fastening of the disc wheel to the axle hub. Attachment faces of wheel and axle hub or brake drum must be free of corrosion and contamination. Only in this case a proper fitting and load transmission is guaranteed.

Further information on standardised wheel connecting dimensions and the corresponding attachment parts are to be found in DIN 74361, parts 1 - 3. Studs and nuts must fit exactly and be tightened to the prescribed torque. The use of the wrong rings or ring components on the multi-piece rims can result in catastrophic wheel failure. To lubricate the tyre beads use a neutral nonaggressive mounting paste. Mounting and removal of wheels should be performed by trained personnel only. The rim marking of tubeless wheels 22.5x11.75 in new generation with wide base rim indicates that rim side at which the tyre should be fitted to by the addition „TYRE MOUNTING SIDE“. No tubes are permitted on tubeless rim types (wheels with 15° drop centre rims). Hardening tyre fillings, being customary for flat running, influence the strength behaviour of the rim. For this reason the wheel manufacturer must be consulted prior to use.

Prior to inflation, the correct positioning of the lock rings or of the loose flange rings has to be carefully checked, always avoid any correction by means of a hammer. In the case of incorrect positioning, the tyre has to be deflated and the mounting procedure to be repeated. When inflating tyres, a safety cage or safety chains must be put round the wheel. The operator has not to stay in the near dangerous areas.

For safety reasons it is imperative that, where multi-piece rims and divided (bolted) type wheels are involved, the tyres must be fully deflated before any removal procedures are started and that only correct tools are used. After removal, wheels and rims must be checked closely to ensure that no fracture, crack, deformation, corrosion, deformed bolt hole seats, heavy wear or other kind of non conformities are present. To prevent premature crack beginning by corrosion, it must be taken care of sufficient corrosion protection. This should be checked and restored regularly and before each tyre mounting. This also includes the tyre side of the

rim and the rings on multi-piece rims. When restoring the surface coat, an excessive coat thickness must be avoided in the areas of attachment faces and bolt hole countersinks.

According to EUWA standard ES 3.06 (Association of European Wheel Manufacturers) wheels must be replaced, where the wear in the area of the rim flange is more than 10 % of the initial material thickness. Any repair or technical change of the wheel is forbidden and illegal since it cannot restore the original strength. All damaged pieces have to be scrapped. Further safety- and service-instructions can be taken from the internet: www.euwa.org

Surface Treatment

If not otherwise prescribed, all disc wheels mentioned in this catalogue, as well as the corresponding ring parts, are delivered zinc-phosphatized and subsequently coated by means of electrophoretic priming. Coating in silver or in other colours on demand.

Quality and Environmental Management

The Integrated Management System (IMS) consisting of Quality and Environmental Management is an integral part of the policy of the enterprise. In order to guarantee the quality of our products and services as well with regard to the environment, we implemented an extensive system of "Integrated Management" complying fully with valid requirements of standards and demands of customers all over the world and with environmental regulations as to the site of the enterprise. This system is continuously subject to further development. The system of quality management includes the whole chain of process starting with the planning phase, followed by the lead time and the phase of sampling as well as the serial production leading to the final phase of application.

As wheels being used for motor vehicles are considered as an element of safety, they are subject to strict regulations respectively requirements. These conditions which have to be fulfilled by the manufacturer must consequently be provable at any time. One important component for that purpose is a computer-aided system of quality management (CAQ) which is integrated into the specific data-processing of our enterprise.

The junction of different modules as for example test planning, administration of test equipment or processing of test values, management of complaints enables the data processing, data administration, analysis and the initiation of modifications of quality on different levels to be done in a rational and systematic manner.

Apart from preventive measures in order to avoid mistakes we use adequate facilities concerning quality tests of purchased parts and of disc wheels including their components.

These consist of machines for the testing of material, fatigue life test facilities, specific CNC - controlled measuring devices for wheels, systems of image processing in order to control the lines of welding and testing appliance for the coating to name just a few.

The Environmental Management System containing as well basics of working safety shows a structural promise in order to systematize environmental and working safety measures to lead to continuous improvements, to plan and realize them so that efficiency will be ameliorated.

Regular analyzing of the flow of energy and materials as well as of existing risks helps most efficiently to find out cost saving potentials and the precaution of risk.

The component 'steel disc wheel' is a product that can fully be recycled and therefore be classified as uncritical concerning pollution. Consequently, this extensively initiated "Integrated Management System" is essential and instrumental to guarantee competitiveness and profitableness of the enterprise and finally to come up to the expectations of a different lobby, especially our customers and the

enterprise, with regard to our quality of products and services as well as to our performances even concerning the environment.

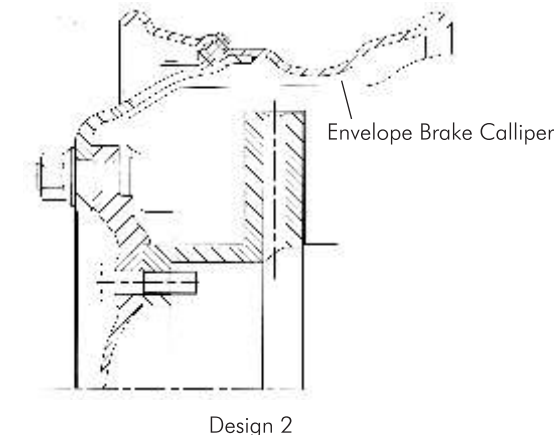
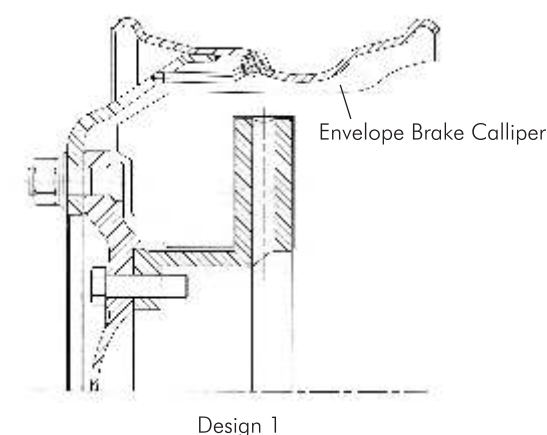
Disc Wheels for Disc Brakes

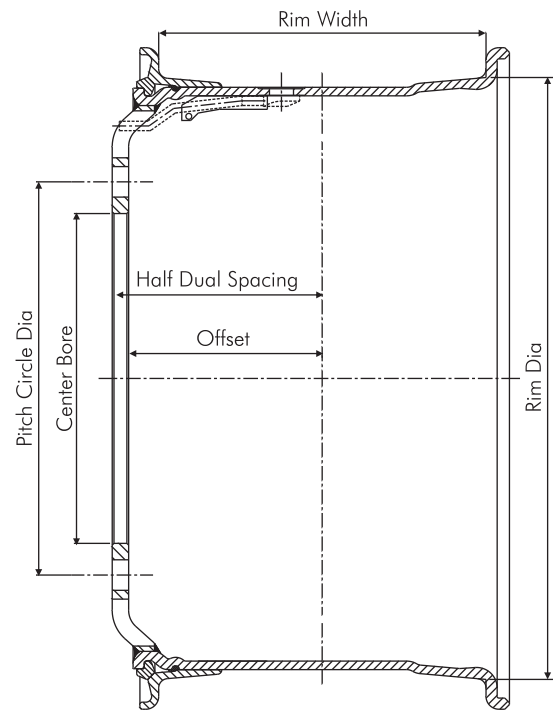
On existing disc wheels with 15° drop centre rims the valve was positioned at the wheel inner area (design 1). Using these wheels on vehicles with disc brakes the risk is given, that during rotation foreign parts (like stones), which entered the inner area, were taken up by the valve. Striking the fixed brake calliper this could lead to damages on the valve, on the calliper or to valve tear-off.

Kalyani Maxion wheels with external valve and hump between bead seat and valve hole (design 2) for safety against tyre release solve this problem.

These wheels show the following characteristics:-

- Valve hole enables standard valve system with 45° single-bent valve (wheels with production dates up to middle 1997 with 27° single-bent valve)
- Passing of valve extension at twin wheels guaranteed
- Safety hump between outside bead seat and valve hole guarantees tyre tight fit during cornering and with reduced air pressure
- Easy valve mounting through large ventilation holes
- Improved brake cooling resulting from larger ventilation holes and their position to the brake disc
- Reduced valve heat up
- Reduced under-cutted sections for collecting dust, water, ice etc. with lower potential unbalance in use.





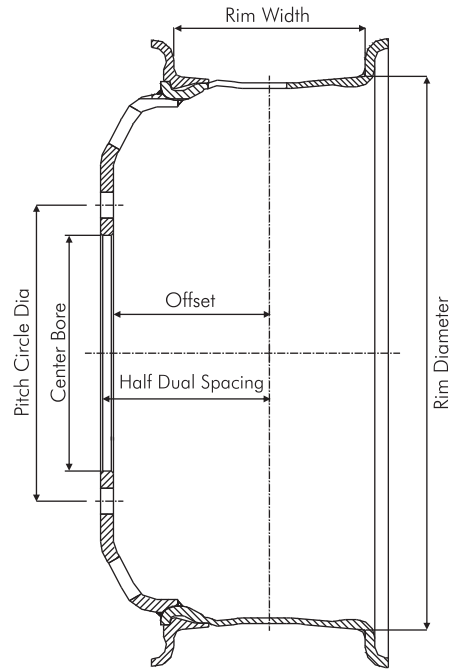
	Tyre Size	Wheel Type	Centre Bore Dia	Pitch Circle Dia	No. Of Holes	Type Of Stud Hole Designation	Offset	Half Dual Spacing	Weight in Kg	Used For	Wheel Load in Kg	KMWPL Wheel Part No.	HLI Reference No.
6.50H - 16 SDC	7.50 R 16	BZ	161	205	6	B18 DS 32	127	138	29.5	Export	1800	2660039	2375250 000 00
	7.50 R 16C	MZ	161	205	6	M20	124	135	29.5	Domestic	1750	2660058	-
	8.25 R 16												
	9.00 R 16												
	235/95 R 16C												
	255/100 R 16												
	305/95 R 16												

6.00G - 16 SDC	7.50 - 16	MZ	161	205	6	M18	114.5	123	21.8	Domestic	1580	2660028 / 045	-
	7.5 - 16	BZ	161	205	6	B18ES32	71	80	23.5	Domestic	1625	2660032	-----
	8.25 - 16	MZ	161	205	6	M18	106	114	21	Domestic	1215	2660034	-----
	7.00 R 16	BZ	161	205	6	B18 DS 32	121	129	22.5	Export	1500	2660037	2375100 000 01
	7.00 R 16C	BZ	200	260	6	B19DS 44.4	119	129	24.3	Export	1500	2660042	2660019 000 05
	7.50 R 16	MZ	145.2	203.2	5	M20	114.5	123.5	21.9	Domestic	1840	2660043	-----
	7.50 R 16C	BZ	150	208	5	B19DS44.4	114.5	123.5	23.5	Domestic	1625	2660044	-----
		MZ	156	208	5	M18	115	123.5	21.8	Domestic	1625	2660046	-----
		MZ	161	205	6	M18	70	80	21.5	Domestic	1845	2660049	-----
		MZ	156	208	5	M18	121.5	131.5	25.4	Domestic	1625	2660052	-----
		MZ	145.2	203.2	5	M20	121.5	131.5	23.7	Domestic	1840	2660053	-----
		MZ	220	275	8	M20	115	125	23.3	Domestic	1625	2660054	-
		(MZ)	164	222.25	6	M19DS44.4	118.5	127	21.7	Domestic	1500	2660055	-----
		MZ	161	205	6	M18	121.5	131.5	24.9	Domestic	1845	2660056	-----
		MZ	156	205	6	M20	125	135	25.6	Domestic	1750	2660059	-----
		MZ	156	208	5	M18	106.5	115	22	Domestic	1720	2660060	-----
		BZ	161	205	6	B18ES32	72	81	23.5	Domestic	1830	31.15.04.261.0	2660022

Disc Wheels with Tapered Bead Seat



Disc Wheels with Tapered Bead Seat

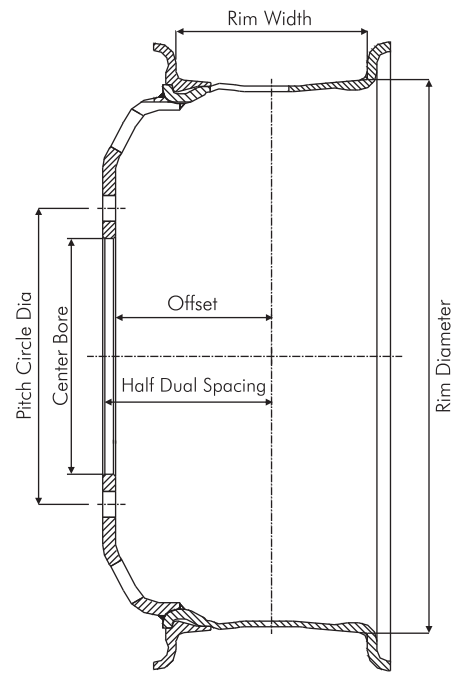


	Tyre Size	Wheel Type	Centre Bore Dia	Pitch Circle Dia	No. Of Holes	Type Of Stud Hole Designation	Offset	Half Dual Spacing	Weight in Kg	Used For	Wheel Load in Kg	KMWPL Wheel Part No.	HLI Reference No.
6 - 20	7.50 R 20	MZ	219	275	8	M20	118	128	37.7	Domestic	2000	2700554	
	7.50 - 20	MZ	219	275	8	M20	123.4	134	39.2	Domestic	2230	2700673	
		MZ	221	275	8	M20	121.4	132	40	Domestic	2230	2700684	
6.5 - 20	8.25 R 20	MZ	221	275	8	M22	124	135	44.4	Domestic	2300	2700688	-----
	9.00-20	MZ	221	275	8	M22	135	147	44.4	Domestic	2575	2700730	-----
	8.25 R 20	MZ	221	275	8	M22	124	135	44.4	Domestic	2300	2700695	-----
		MZ	202	245	6	M18	123	135	43	Domestic	2000	2700697	-----
	8.25 R 20	MZ	219	275	8	M20	123	134	41	Domestic	2300	2700714	-----
		MZ	281	335	10	M22	137	148	-----	Domestic	2000	2700732	-----
7.0 - 20	8.25 R 20	MZ	219	275	8	M20	137.4	148	44	Domestic	3000	2700347 / 645	-----
	9.00 R 20	MZ	219	275	8	M22	145	157	46.5	Domestic	3000	2700364	-----
	10.00 R 20	MZ	221	275	8	M22	145	157	46.5	Domestic	3430	2700384	-----
	270/95 R 20	MZ	221	275	8	M22	145	157	48.5	Domestic	3430	2700556 DLR	-----
	290/95 R 20	BZ	221	275	8	B22 DS36	133	144	43	Export	2500	2700569	2700456
		MZ	221	275	8	M20	137.5	148.5	45	Export	2500	2700570	2700540 000 00
	290/95 R 20	BZ	221.45	285.8	10	B19 DS 44.4	153	163	45	Export	2500	2700572	2376690 000 05
		MZ	281	335	10	M22	142	152	42	Export	2500	2700592	2700457 000 00
	290/95 R 20	MZ	221	275	8	M20	142	153	45	Export	2500	2700605	-----
		BZ	281	335	10	B22 DS36	142	152	43	Export	2500	2700613	-----
	290/95 R 20	MZ	221	275	8	M22	146.4	157	47	Domestic	2500	2700640	-
		MZ	281	335	10	M22	146	157	43.8	Domestic	3000	2700641	-----
	290/95 R 20	MZ	219	275	8	M20	137.4	148	44	Domestic	3000	2700647	-----
		MZ	219	275	8	M22	145.4	157	48	Domestic	3000	2700653	-----
	290/95 R 20	(MZ)	221	285	8	M19DS44.4	150	162	45	Domestic	3000	2700648	2376690 000 05
		MZ	219	275	8	M20	146.4	157	45	Domestic	2500	2700674	-
	290/95 R 20	MZ	219	275	8	M20	136	148	46	Domestic	3000	2700681 DLR	31.15.70.115.0
		MZ	219	275	8	M22	145	157	48	Domestic	3000	2700682 DLR	2700364 000 00
290/95 R 20	MZ	221	275	8	M22	146.4	157	45.5	Domestic	3000	2700701 DLR	-	
	MZ	222	275	8	M20	146	157	45	Domestic	2500	2700711	-	
290/95 R 20	MZ	221	275	8	M22	146	157	46	Domestic	3000	2700713	-	
	MZ	222	275	8	M20	137	148	44	Domestic	3000	2700731	-	

Disc Wheels with Tapered Bead Seat (Domestic)



Disc Wheels with Tapered Bead Seat

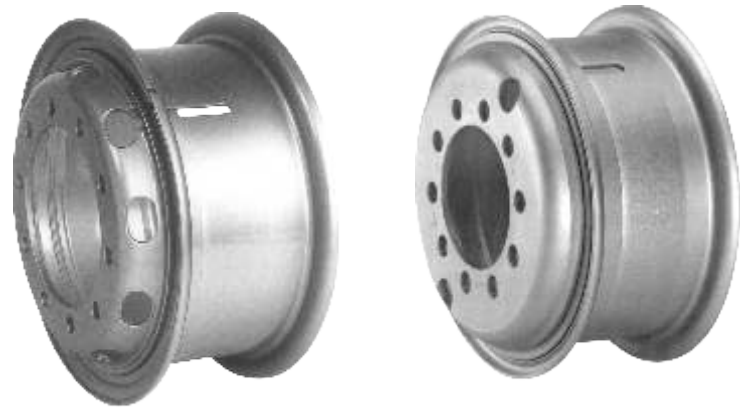
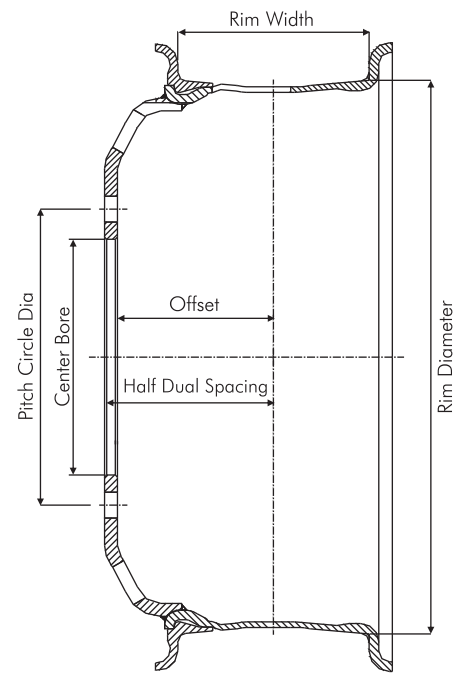


	Tyre Size	Wheel Type	Centre Bore Dia	Pitch Circle Dia	No. Of Holes	Type Of Stud Hole Designation	Offset	Half Dual Spacing	Weight in Kg	Used For	Wheel Load in Kg	KMWPL Wheel Part No.	HLI Reference No.
7.5 - 20	9.00 R 20	MZ	281	335	10	M 22	149	160	45.4	Domestic	3000	2700518/667	-----
	10.00 R 20	MZ	281	335	10	M 22	150	162	46.7	Domestic	3750	2700519 / 671	-----
	11.00 R 20	MZ	161	205	6	M 18	177	189	62.1	Export	2600	2700573	2700448 000 01
	270/95 R 20	BZ	281	335	10	B22 DS 36	154.5	165	47	Export	3000	2700574	2700454 000 01
	290/95 R 20	MZ	281	335	10	M 22	149	160	46	Export	3000	2700576	2700485 000 00
	300/95 R 20	MZ	281	335	10	M 22	149	160	46.8	Domestic	3000	2700594 DLR	-----
		MZ	281	335	10	M 22	148	160	50	Export	3750	2700601	2700495 000 05
		MZ	281	335	10	M 22	154	165	47	Export	3000	2700604	-----
		MZ	281	335	10	M22	155	167.5	47.9	Domestic	3750	2700651	-----
		MZ	281	335	10	M22	150	162	47	Domestic	3750	2700662	-
		MZ	281	335	10	M22	153	165	47	Domestic	3750	2700683	-
		MZ	281	335	10	M22	155.5	167.5	49.4	Domestic	3750	2700694/2700703DLR	-
		MZ	281	335	10	M22	152.5	165	49	Domestic	3750	2700696 DLR	-
		MZ	281	335	10	M22	143	155	46.2	Domestic	3500	2700698	-
		MZ	219	275	8	M22	147.5	160	47	Domestic	3750	2700699	-
		MZ	281	335	10	M22	147.5	160	47	Export	3750	2700702 DLR	-
	10.00 R 20	MZ	281	335	10	M22	150	162	48.5	Export	3250	2700704	-
		MZ	281	335	10	M22	149	160	45.65	Domestic	3000	2700706	-
		MZ	219	275	8	M20	149	160	46.32	Domestic	2500	2700708	-
	10.00 R 20	MZ	221	275	8	M22	148	160	46.7	Export	3000	2700717	-
	BZ	221	285	8	B19 DS 44.4	153.5	167	51	Export	3950	2700722	-	
	MZ	281	335	10	M22	150	162	46.7	Export	3750	2700729	-	
10.00 R 20	MZ	281	335	10	M22	150.4	162	44.5	Export	3750	2700740	-	
8.5 - 20	11.00 R 20	BZ	281	335	10	B22 DS 36	160	172	51.5	Export	3750	2700582	2700378 000 05
	12.00 R 20	MZ	281	335	10	M 22	163	175	54.5	Export	3750	2700583	2700382 000 01
	12/80 R 20	(MZ)	281	335	10	M22 DS 36	163	175	53	Export	3750	2700585	2700882 000 05
	12.00 - 20EM	(MZ)	281	335	10	M22 DS 36	163	175	53	Export	3750	2700618	2700882 000 05
	335/80 R 20	MZ	281	335	10	M22	163	175	53	Domestic	3750	2700644	-----
		MZ	281	335	10	M 22	161	175	54.5	Export	4500	2700656	2700382 000 01
	12.00 R 20	MZ	281	335	10	---	168.5	182	54.5	Export	4000	2700700	
		MZ	281	335	10	M22	163	175	54.5	Domestic	3750	2700712	
		MZ	281	335	10	M22	161.5	175	55	Export	4500	2700725	
		MZ	281	335	10	M22	171	185	54.5	Export	3750	2700726	
	MZ	281	335	10	M22	163	175	54.5	Export	3750	2700728		
	MZ	281	335	10	M22	166.5	180	-	Export	4500	2700736	85423	
	MZ	281	335	10	M22	161.5	175	53	Export	4500	2700738		

Disc Wheels with Tapered Bead Seat (Domestic)



Disc Wheels with Tapered Bead Seat

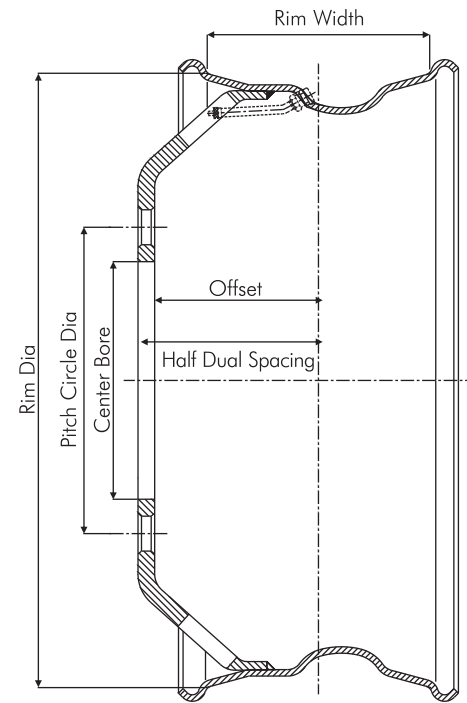


	Tyre Size	Wheel Type	Centre Bore Dia	Pitch Circle Dia	No. Of Holes	Type Of Stud Hole Designation	Offset	Half Dual Spacing	Weight in Kg	Used For	Wheel Load in Kg	KMWPL Wheel Part No.	HLI Reference No.
8.0 - 20	10.00 R 20	MZ	219	275	8	M20	114.5	127	49.5	Domestic	4000	2700553	-----
	11.00 R 20	BZ	221	275	8	B22 ES 36	225	239	57	Export	3500	2700577	2700 180 000 01
	11.00 - 20 EM	MZ	281	335	10	M22	162	174	48	Export	3250	2700578	2700 427 000 05
	12.00 - 20	BZ	281	335	10	B22 DS 36	162	174	48	Export	3500	2700579	-----
	290/95 R 20	MZ	221	275	8	M20	153	165	49	Export	3250	2700580	2700499 000 00
	300/95 R 20	MZ	281	335	10	M22	157	143	66	Export	3350	2700581	2700541 000 01
	330/95 R 20	MZ	281	335	10	M22	173	187	55	Export	5200	2700591	2700075 000 05
		BZ	281	335	10	B22 DS 36	162.5	174	48	Export	3500	2700617	2700468 000 00
		MZ	281	335	10	M22	114.5	127	49	Domestic	4000	2700638	-----
		MZ	281	335	10	M22	160	172	52.2	Domestic	3550	2700650 / 661	-----
		BZ	221	285	8	B19DS44.2	160	174	55.2	Export	4000	2700654	-----
		MZ	281	335	10	M22	158.5	172	53.5	Domestic	3550	2700686	-
		MZ	281	335	10	M22	159.5	172	53.5	Domestic	3550	2700690 DLR	-
		MZ	281	335	10	M22	153.5	166	53.5	Domestic	3550	2700692	-
		BZ	221	285	8	B19 DS 44.4	151	165	55.26	Export	4000	2700705	-
		MZ	220.1	285.75	10	M22	160	174	55.11		3550	2700715	-
	MZ	281	335	10	M22	160	172	51	Export		2700724	-	
	MZ	281	335	10	M22	160	172	49	Domestic	4500	2700744	-	
8.5 - 24	12.00 R 24	BZ	281	335	10	B22 DS 36	167	180	75.4	Export	4500	2740181 / 189	2740144 000 05
		MZ	281	335	10	M 22	167	180	75.4	Export	4500	2740182 / 196	2740177 000 01
		MZ	281	335	10	M22	166	180	74.5	Export	4500	2740183	2740145 000 05
		MZ	281	335	10	M 22	165	178	75.4	Export	4500	2740184 / 187/204	2740146 000 05
		BZ	281	335	10	B22 DS 36	165.5	180	78.5	Export	4500	2740185 / 188	2740179
		MZ	281	335	10	M 22	165.5	180	78	Export	4500	2740190	-----
		BZ	281	335	10	B22 DS 36	167	180	76.5	Export	4500	2740191	-----
		MZ	281	335	10	M22	170	183	75.4	Domestic	4250	2740194	-----
		MZ	281	335	10	M22	165	178	75.4	D/E	4500	2740195	
		MZ	281	335	10	M22	170	183	77	Domestic	4250	2740197 DLR	
		MZ	281	335	10	M22	167	180	77	Domestic	4750	2740198 DLR	
		MZ	281	335	10	M22	158.5	145	71.5	Export	4500	2740199	
		MZ	281	335	10	M22	167	180	75.4	Export	4500	2740200	
		MZ	281	335	10	M22	165.5	180	74.5	Export	4500	2740201	
		MZ	281	335	10	M22	165.5	180	77.8	Export	4500	2740202 DLR	
		MZ	281	335	10	M22	159	174	75.3	Export	4500	2740203 / 206	
	MZ	281	335	10	M22	167	180	73.8	Export	4750	2740205		
	MZ	281	335	10	M22	170.5	185	77	Export	4500	2740207		

Disc Wheels with 15° Drop Center Rim



Disc Wheels with 15° Drop Center Rim



	Tyre Size	Wheel Type	Centre Bore Dia	Pitch Circle Dia	No. Of Holes	Type Of Stud Hole Designation	Offset	Half Dual Spacing	Weight in Kg	Used For	Wheel Load in Kg	KMWPL Wheel Part No.	HLI Reference No.
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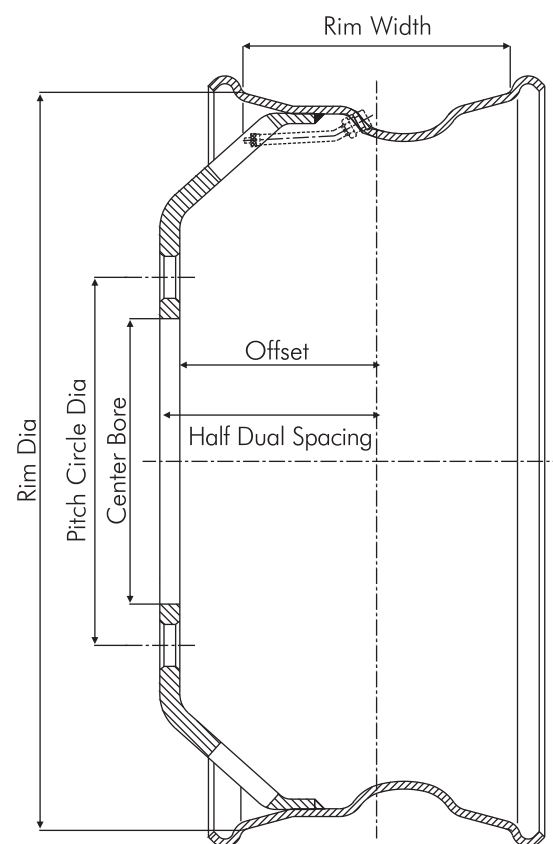
17.5 X 6.00	8 R 17.5	(MZ)	161	205	6	M 18 ES 32	0	-	24.5	Export	3000	2870015	2870015 000 05
	8.5 R 17.5	(MZ)	176	225	10	M 22 DS36	111.5	124	25.5	Export	3000	2870033	000 05
	9 R 17.5	(MZ)	164	222.25	6	M 19 DS 44.4	126	136	21.42	Export	1750	2870102 / 137 / 139	-----
	9.5 R 17.5	BZ	146	203.2	5	B 19 DS 44	103	115	22.42	Export	1750	2870129	-----
	205/75 R 17.5	BZ	150	208	5	B 19 DS 44	106	118	22.7	Export	1750	2870138	2870133/176089
	215/75 R 17.5	(MZ)	150	208	5	M 19 DS 44	112	122	22.6	Export	1750	2870149	186120
	225/75 R 17.5	MZ	202	245	6	M18	115	125	20	Domestic	1850	2870157alive	5685 (Borlem)
		MZ	161	205	6	M 18	104	115	22.2	Domestic	1850	2870162alive	5185 (Borlem)
		(MZ)	176	225	10	M 22 DS 36	120.5	133	26.5	Export	3000	2985800	2985800 000 65
		MZ	161	205	10	M 18	110	120	20	Domestic	1850	2870172	2870170 000 61

17.5 X 6.75	8 R 17.5	(MZ)	161	205	6	M 18 ES 32	0	-	27	Export	3000	2870016	2870016 000 05
	8.5 R 17.5	(MZ)	176	225	10	M 22 DS 36	122.5	135	28	Export	3000	2870035	2985850 000 05
	9 R 17.5	MZ	202	245	6	M18	120.5	131.5	22	Domestic	2000	2870152 alive	2870152 038 81
	9.5 R 17.5	MZ	161	205	6	M18	104	115	22.27	Domestic	2000	2870161 alive	2870152
	10 R 17.5	(MZ)	176	225	10	M 22 DS 36	132.5	145	28.5	Export	3000	2985850	2985850 000 05
	205/65 R 17.5												
	205/75 R 17.5												
	215/75 R 17.5												
	225/70 R 17.5	MZ	156	208	5	M 20	121	131.5	23.4	Domestic	2000	2870165	
	225/75 R 17.5	MZ	161	205	6	M18	121.5	131.5	23	Domestic	2000	2870168	
	235/75 R 17.5	MZ	161	205	6	M18	121.5	131.5	23	Domestic	2000	2870170	
	245/70 R 17.5	MZ	161	205	6	M18	121	131.5	23.8	Domestic	2000	2870171	
	245/75 R 17.5												
	265/70 R 17.5												

Disc Wheels with 15° Drop Center Rim



Disc Wheels with 15° Drop Center Rim

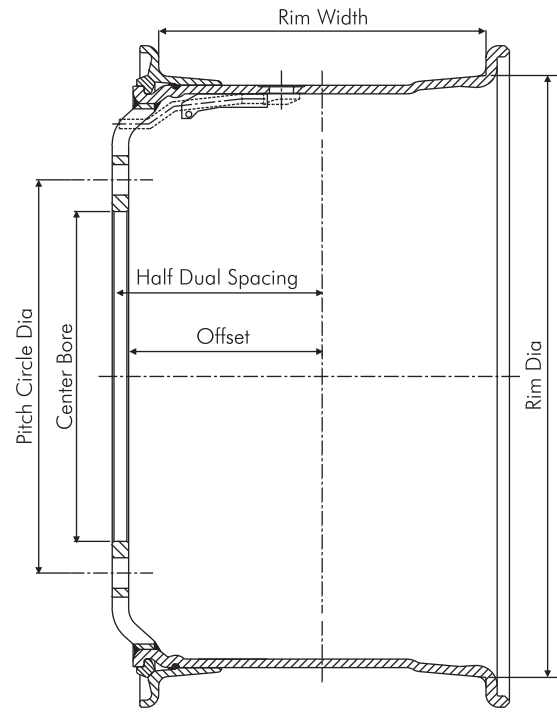


	Tyre Size	Wheel Type	Centre Bore Dia	Pitch Circle Dia	No. Of Holes	Type Of Stud Hole Designation	Offset	Half Dual Spacing	Weight in Kg	Used For	Wheel Load in Kg	KMWPL Wheel Part No.	HLI Reference No.
22.5 X 8.25	11 R 22.5	(MZ)	221	285	8	M 19 DS 44.4	151	165	43.94	Export	3550	2920472	-----
	12 R 22.5	MZ	281	335	10	M22	151	165	41.13	D/E	3550	2920563 / 580 / 608	2920032 000 05
	255/70 R 22.5	MZ	281	335	10	M22	156	170	44.73	Domestic	3550	2920564 / 674	2920072
	305/70 R 22.5	MZ	281	335	10	M22	157	171	41.13	D/E	3550	2920591	-
	275/80 R 22.5	(MZ)	221	285	8	M 19 DS 44.4	151.5	165	45.14	Export	3550	2920592	-----
	295/80 R 22.5	(MZ)	221	285	8	M 19 DS 44.4	151.5	165	42.14	D/E	3550	2920596	-----
	225/75 R 17.5	MZ	220.1	285.75	10	M 22	152	166.5	41.54	Export	3550	2920602	-----
		BZ	221	285.75	10	B 19 DS 44.4	150.5	165	41.64	Export	3500	2920603	-----
		(MZ)	281	335	10	M 22 DS 36	151	165	41.13	Export	3550	2920605	2920188 000 05
		(MZ)	221.45	285.75	10	M 19 DS 44.4	153.4	168	41.64	Export	3550	2920607	-----
		(MZ)	281	335	10	M 22 DS 36	149	163	41.13	Export	3550	2920632	2920187 000 05
		MZ	281	335	10	M22	156.5	170	42	Export	3550	2920665 alive	-----
		MZ	281	335	10	M 22	151.5	165	41.5	Export	3550	2920666 alive	-----
		MZ	281	335	10	M22	144	158	40.5	Domestic	3550	2920677	-----
		MZ	219	275	8	M22	151.5	165	45.5	Domestic	3750	2920690	-----
		MZ	281	235	10	M22	156.5	170	41.6	Domestic	3550	2920694	-----
		MZ	221	285	8	M22	151	165	—	—	—	2920713	-----
		MZ	281	335	10	M22	157	170	42.24	Domestic	3550	2920731	-----
	MZ	281	335	10	M22	157	170	42.24	Domestic	3550	2920749	-----	
	MZ	281	335	10	M22	151.5	165	41.5	Domestic	3550	2920756	-----	
22.5 X 9.00	12 R 22.5	MZ	281	335	10	M 22	161	175	41	Export	4000	2920382alive	2920382 000 04
	13 R 22.5	MZ	281	335	10	M 22	161.5	175	42.76	Export	4000	2920565 / 639 / 675	2920163 000 05
	305/70 R 22.5	(MZ)	221.45	285.75	10	M 19 DS 44	160	175	47.4	Export	4000	2920566	2920458 000 05
	315/70 R 22.5	(MZ)	281	335	10	M22 DS 36	161	175	41.74	Export	4000	2920593 / 642	-----
	315/75 R 22.5	BZ	221	285	8	B 19 DS 44	160	175	44.8	Export	4000	2920597	-
	295/80 R 22.5	(MZ)	221.45	285.75	10	M 19 DS 44	160	175	47.4	Export	4000	2920598	2920458
	315/80 R 22.5	MZ	281	335	10	M 22	160	175	44.4	Export	4000	2920599	2920163 000 05
		MZ	281	335	10	M22	156	170	43	Domestic	3750	2920672	-
		MZ	281	335	10	M22	113	127	46.7	Domestic	4000	2920683 H2	-
		MZ	281	335	10	M22	161.5	175	42.76	Domestic	4000	2920675	
	MZ	281	335	10	M22	113.5	127	46.7	Domestic	4000	2920683		
	BZ	220	285	8	B 19 DS 44.4	160.5	175	44.8	Export	4000	2920686	-	

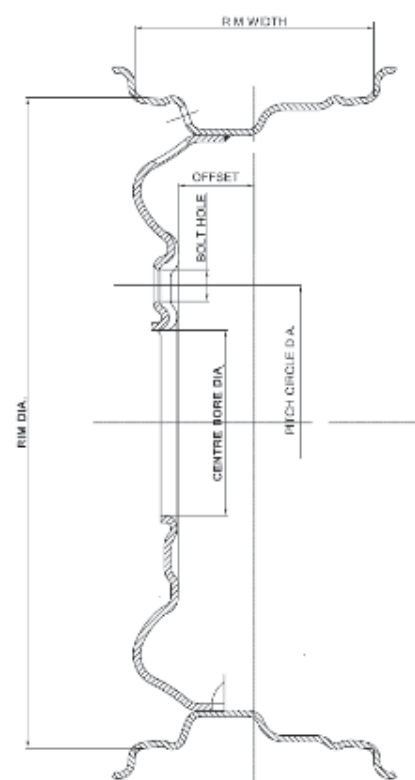
Disc Wheels with Semi Drop Centre



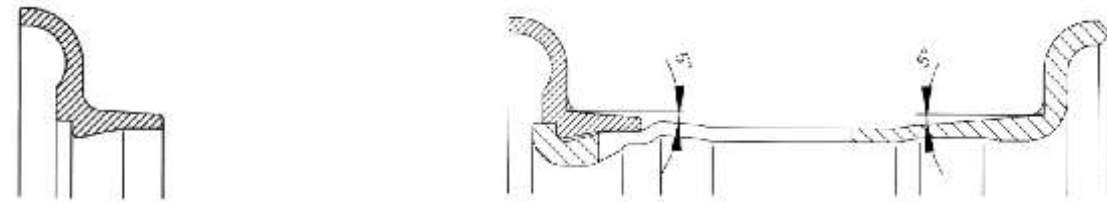
Disc Wheels for Special Applications



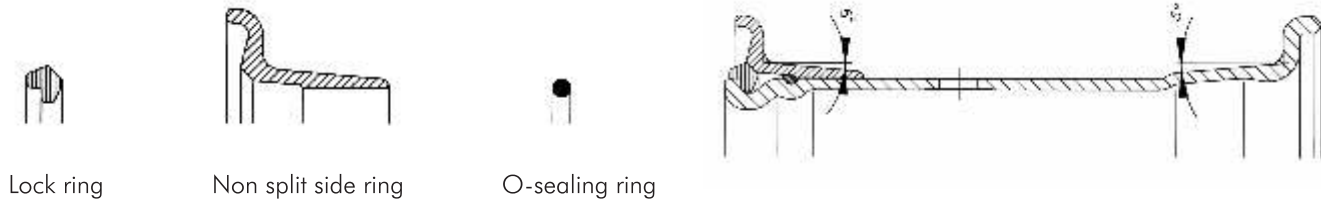
	Tyre Size	Wheel Type	Centre Bore Dia	Pitch Circle Dia	No. Of Holes	Type Of Stud Hole Designation	Offset	Half Dual Spacing	Weight in Kg	Used For	Wheel Load in Kg	KMWPL Wheel Part No.	HLI Reference No.
11-20 SDC	12.5 - 20 MPT	MZ	221	275	8	M20	100	112	52	Export	3600	2700529	2700529 000 00
	14.5 - 20 MPT	MZ	281	335	10	M22	165	179	50	Export	3600	2700587	2700521 000 00
	335/80 R 20 MPT	(MZ)	164.4	222.25	6	M19 DC 60	106.6	118.6	57	Export	2500	2700596	-----
	365/80 R 20 MPT	MZ	221	275	8	M20	92	--	58	Export	3500	2700637	2700529 000 05
	375/70 R 20 MPT	MZ	281	335	10	M22	110	122	57.66	Export	3500	2700664	2700620 000 05
	375/75 R 20 MPT	MZ	221	275	8	M20	119	131	58	Export	3500	2700668	2700529
	425/75 R 20 MPT	BZ	221	335	10	B22 ES 36	130	142	58.5	Export	2300	2700672	-----
		(MZ)	281	335	10	M22 ES 36	184	197	57	Export	3500	2700693	2983151 000 010
		MZ	161	205	6	M18	95	106.5	59.45	Export	2750	2700739	2700012 000 01
	BZ	221	275	8	B22 ES 36	130	142	60.5	Export	3550	2700719		
10.00 V - 20	14.00 R 20	BZ	281	335	10	B22 ES 36	184	197	61.5	Export	4250	2700558	2433640 000 00
	14/80 R 20	MZ	161	205	6	M18	82	94	67	Export	2750	2700560	2700164 000 00
	335/80 R 20	MZ	281	335	10	M22	161	175	61	Export	4750	2700561	2700534 000 00
	365/80 R 20	MZ	281	335	10	M22	201	214	65.5	Export	4500	2700562	2709009 000 00
	365/85 R 20	(MZ)	281	335	10	M22 ES 36	0	---	59	Export	4500	2700563	2700244 000 00
	395/85 R 20	MZ	221	275	8	M20	90	102	66	Export	4600	2700602	-----
		MZ	221	275	8	M20	108	121	66	Export	4600	2700603	-----
		BZ	281	335	10	B22 DS 36	120	132	60.2	Export	4600	2700659	-----
		BZ	281	335	10	B22 DS 36	121.5	133.5	60.2	Export	4600	2700660	-----
		MZ	281	335	10	M22	111.5	125	71.8	Domestic	5000	2700680	-----
		(MZ)	281	335	10	M22 DS 36	140	154	70	Domestic	5000	2700721	-----
		MZ	281	335	10	M22	—	—	59	Export	5000	2700723	-----
10.00 W - 20	14.75/80 R 20	MZ	281	335	10	M22	203	216	66.5	Export	5000	2700564	2700306 000 01
	15.5/80 R 20	(MZ)	281	335	10	M22 ES 36	113	125	68.5	Export	5000	2700566	2700406 000 00
	14.00 R 20	(MZ)	281	335	10	M22 ES 36	113	125	68.5	Export	5600	2700565	2700405 000 01
	365/85 R 20	(MZ)	221.45	285.8	10	M19 DS 44.4	102.7	115.7	71.5	Export	5000	2700597	-----
	385/95 R 20	BZ	281	335	10	B22 ES 36	120	134	65.9	Export	5000	2700567	2700542 000 05
	395/85 R 20	MZ	281	335	10	M22	113	125.5	68.5	Export	5600	2700607	-----
		(MZ)	281	335	10	M22 ES 36	140	155	66	Export	5000	2700611	-----
		MZ	281	335	10	M22	0	13	69.9	Export	5000	2700612	-----
		MZ	281	335	10	M22	120	134	67	Export	5600	2700669	-----
		MZ	281	335	10	M22	120	134	66.89	Export	5600	2700670	-----
		MZ	281	335	10	M22	120	132.5	69.7	Export	5000	2700678	-----
		MZ	281	335	10	M22	138	153	65.8	Export	5600	2700619	-----
		MZ	281	335	10	M22	95	107	--	Export	5000	2700628	
		MZ	281	335	10	M22	95	107	--	Export	5000	2700629	
		MZ	281	335	10	M22	151	165	66.34	Domestic	5000	2700679	
		MZ	281	335	10	M22	112	125	68.25	Domestic	4750	2700685	
	MZ	221	275	8	M20	118	131	73	Export	4500	2700716		
	MZ	281	335	10	M22	120	134	67	Export	5600	2700720		
	MZ	281	335	10	M22	0	-	69.9	Export	5000	2700734		



	Wheel P / No.	Size	Offset	PCD	Center Bore	No. of Holes	Bolt Hole Type	Wheel Weight in Kg.	Wheel Load in Kg.	Used For
14"	2140146 000 00	5.5J x 14 H2	41	98	58	4	E23	6.82	475	Domestic / Export
	2140929 000 00	5J x 14 H2	35	100	57.09	5	E26	6.98	460	Domestic / Export
	2141614 000 00	5.5J x 14 H2	50	100	56	4	E26	7.61	420	Domestic / Export
	2141023 000 00	5.5J x 14 H2	35	100	57.09	5	E26	6.41	425	Domestic / Export
	2140934 000 00	5J x 14 H2	35	100	57.09	4	E26	5.93	405	Domestic / Export
	2141610 000 00	5J x 14 H2	45	114.3	66	4	E16	6.99	640	Domestic / Export
	2141605 000 00	5J x 14 H2	50	100	56	4	E26	7.83	405	Domestic / Export
	2141027 000 00	5J x 14 CH	43	108	65	4	E16	6.72	500	Domestic / Export
15"	2151056 000 61	5.5J x 15H2	44.5	160	108	5	E8	10.90	835	Domestic / Export
	2151078 000 61	5.5J x 15H2	55	160	108	5	E8	11.40	1500	Domestic / Export
	2151625 000 00	5.5J x 15H2	45	100	56	4	E12	8.38	460	Domestic / Export
	2151606 000 00	5.5J x 15H2	45	100	56	4	E12	8.94	460	Domestic / Export
	2150177 000 00	6J x 15 H2	41	98	58	4	E23	7.94	500	Domestic / Export
	2151079000 00	6J x 15H2	55	160	108	5	E8	9.80	1200	Domestic / Export
	2150848 000 00	6J x 15H2	37.5	107.95	63.35	4	E23	7.71	495	Domestic / Export
	2151083 000 00	6J x 15H2	55	160	108	5	E8	9.90	950	Domestic / Export
	2150855 000 00	6J x 15H2	37.5	107.95	63.35	4	E23	7.71	495	Domestic / Export
	2151090 000 00	6J x 15H2	50	160	108	5	E8	9.80	925	Domestic / Export
16"	2160061 000 00	6.5J x 16 CH	44.5	160	108	5	E8	12.36	860	Domestic / Export
	2160055 000 61	5.5F x 16	36	160	108	5	E8	12.50	1220	Domestic / Export
	2160062 000 00	6JJ x 16	35	139.7	93	6	E23	14.68	925	Domestic / Export
	2160938 000 00	6.5J x 16H2	44	112	57.09	5	E26	7.99	565	Domestic / Export
	2160950 000 00	6.5J x 16H2	44	112	57.09	5	E26	8.00	565	Domestic / Export
	2160939 000 00	3.5J x 16H2-S	15	112	57.09	5	E26	6.45	565	Domestic / Export
	2160940 000 00	3J x 16H2-S	15	112	57.09	5	E26	6.22	565	Domestic / Export
	2160950 000 00	6.5J x 16H2	44	112	57.09	5	E26	8.00	565	Domestic / Export
	2160161 000 00	6.5J x 16CH (Semifullface)	33	139.7	100	6	E23	13.81	925	Domestic / Export
	2160080 000 00	8J x 16H2	0	150	116	5	E23	16.80	1500	Domestic / Export



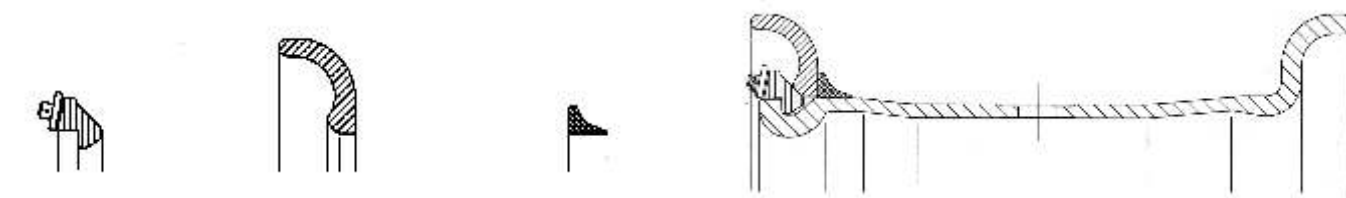
For reason of safety it is of vital importance to use the correct pertinent split side ring (combination ring). It is recommended to assemble the separation gap of the split side ring twisted by at least 45° referred to the valve slot.



Lock ring

Non split side ring

O-sealing ring



Lock ring

Non split side ring

Rubber sealing ring

Type of ring

Rim allocation

Weight kg

Two-piece 5° semi drop centre rim of tube tyres

Split side ring	6.50H / 6.0 - 16 SDC	6,2
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Two-piece 5° tapered bead seat rim for tube tyres

Split side ring	6.0 - 20	7,8
	6.5 / 7.0 - 20	7,8
	7.5 / 8.0 - 20	8,9
	8.5 - 20	9,8
	8.5 - 24	12,3

Three-piece 5° semi drop centre rim for tubeless tyres and tube tyres

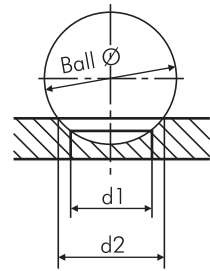
Side ring	11 - 20SDC	6,5
Lock ring	11 - 20SDC	1,8
O-sealing ring size designation OR2-20 (OR 220 TG) for 11-20SDC		

Four-piece flat base rim for tubeless tyres and tube tyres

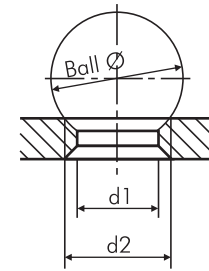
Side Ring	10.00V - 20	7,8
	10.00W - 20	10,8
Lock Ring	10.00V / 10.00W - 20	3
Sealing Ring	10.00V / 10.00W - 20	0,2

All rings are stamped as follows:

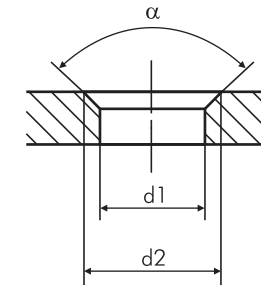
Size code, production date, Kalyani Maxion trade mark and reference number.



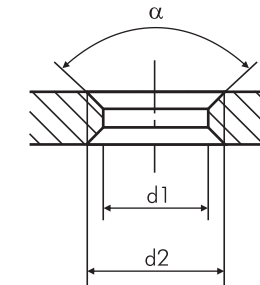
Example :
according to EUWA :
countersink external : B22 ES 36
countersink inside : B22 IS 36
according to Kalyani Maxion : A3



Example :
according to EUWA :
countersink double side : B22 DS 36
according to Kalyani Maxion : B3



Example :
according to EUWA :
countersink external : B23 EC 80
countersink inside : B23 IC 80
according to Kalyani Maxion : A17



Example :
according to EUWA :
countersink double side : B23 DC 80
according to Kalyani Maxion : B17

Stud hole code	
M 22 I S 36	spherical type of stud hole
B 22 I S 36	ball diameter
B 22 I S 36	spherical
B 22 I S 36	countersink inside, external, double side
B 22 I S 36	stud diameter
M =	hub centering / double centering
B =	stud centering

For stud centered wheels (spherical countersink)					
according to		d1	d2	ball Ø	thread
EUWA	Kalyani Maxion standard				
B14 DS 28	B1	18,5	24	28	M14 x 1,5
B14 ES 28	A1	18,5	24	28	M14 x 1,5
B18 DS 32	B2	21,5	27	32	M18 x 1,5
B18 ES 32	A2	21,5	27	32	M18 x 1,5
B22 DS 36	B3	27	32	36	M22 x 1,5 (M20 x 1,5)
B22 ES 36	A3	27	32	36	M22 x 1,5 (M20 x 1,5)
B19 DS 44,4	B5	32,5	37,5	44,4	3/4" UNF-thread
B19 ES 44,4	A5	32,5	37,5	44,4	3/4" UNF-thread

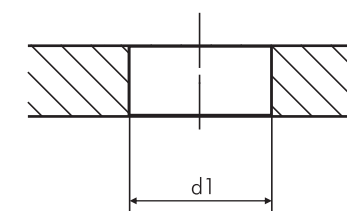
For double centered wheels (spherical countersink)					
M18 DS 32	B2	21,5	27	32	M18 x 1,5
M14 ES 32	A2	21,5	27	32	M18 x 1,5
M22 DS 36	B33	26	32	36	M22 x 1,5 (M20 x 1,5)
M22 ES 36	A33	26	32	36	M22 x 1,5 (M20 x 1,5)
M19 DS 44,4	B5	32,5	37,5	44,4	3/4" UNF-thread
M19 ES 44,4	A5	32,5	37,5	44,4	3/4" UNF-thread

Stud hole code	
M 23 I C 80	conical type of stud hole
B 23 I C 80	angle
B 23 I C 80	conical
B 23 I C 80	countersink inside, external, double side
B 23 I C 80	stud diameter
M =	hub centering / double centering
B =	stud centering

For stud centered wheels (conical countersink)					
according to		d1	d2	α	thread
EUWA	Kalyani Maxion standard				
B23 DC 80	B17	25,4	31	80°	7/8" UNF-thread
B23 EC 80	A17	25,4	31	80°	7/8" UNF-thread

For double centered wheels (conical countersink)					
M23 DC 80	B37	26	31	80°	7/8" UNF-thread
M23 EC 80	A37	26	31	80°	7/8" UNF-thread

example :
cylindrical stud hole M22



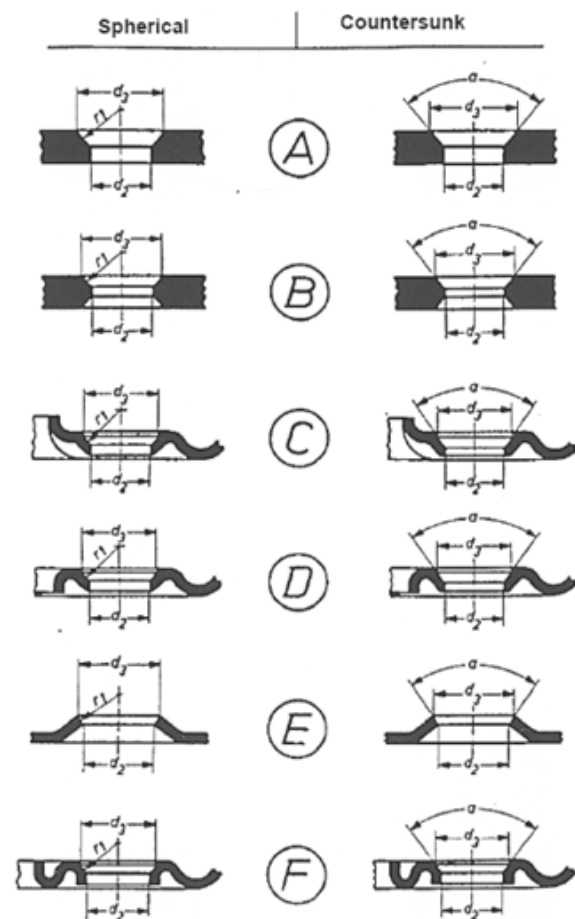
For hub centered wheels (cylindrical stud holes)					
M18	21				M18 x 1,5
M20	24				M20 x 1,5
M22	26				M22 x 1,5

Stud Hole Types Passenger Car Wheel



Features of Kalyani Maxion Wheels

Bolt Hole Specifications



Nr.	d ₂	d ₃	r ₁	α	Bolt Size
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Specifications for Spherical type Bolt hole

1	18,5	24	14	-	M 14 x 1,5
2	21,5	27	16	-	M 18 x 1,5
3	27	32	18	-	M 22 x 1,5
4	20,5	25	14	-	M 20 x 1,5
5	32,15	37	22,2	-	M 14 x 1,5 3/4" amerika- nisches Fordgewinde
6	14	-	14	-	
7	15,5	-	14	-	
8	18,5	-	14	-	M 12 x 1,5 M 14 x 1,5
9	20	-	14	-	
10	21	-	14	-	
11	20	-	12	-	
12	16	20	12	-	M 12 x 1,5
26	15	20	13	-	
30	24,5	29	18	-	
31	37	43	25	-	
33	26	32	18	-	

Specifications for Spherical type Bolt

13	15	19,8	-	60°	
14	16	19,8	-	60°	
15	16	22	-	90°	
16	15,5	-	-	60°	M 12 x 1,5
17	25,4	31,5	-	80°	
18	18,5	-	-	60°	
19	16,8	-	-	60°	
20	28,6	36	-	90°	
21	21,5	27	-	90°	
22	12	-	-	80°	
23	-	17	-	60°	
24	13	16	-	90°	M 12 x 1,5
25	10,5	-	-	60°	
37	26	31,5	-	80°	

KALYANI MAXION WHEELS enjoys many technological advantages built in the product by Maxion Wheels International. The major technological features of Kalyani Maxion Wheels Pvt. Ltd. are

Maxion Wheels follows Cold Working manufacturing process & also pioneers in Flow-forming Technology for Wheel Rims & holds numerous patents in Europe for Various Wheel Designs, Processes etc.

- Compression Moulding of Rim which ensures the butt welding strength of the joint.
- Flow Forming of Rim reduces the section thickness in certain low stress area and makes the wheel lighter in construction.
- Submerged Arc Welding ensures sufficient weld penetration at the welding joint and finally the strength of joint.
- The design of the disc is optimized for strength and adequate fatigue life.
- Kalyani Maxion Wheels have world class CATHODIC ED COATING facility, which has appreciated by Volvo & DC, results in best painting quality.
- KMWPL wheel rim design will not only help in increasing tyre life but also give better fuel efficiency due to stable vehicle operations.
- Performance of Kalyani Maxion Wheels products has been appreciated by all OEMs in India and abroad by its superior field performance.

At Kalyani Maxion Wheels, we view our state of the art CAD/CAE capabilities as the catalyst in the product development cycle. Product design and analysis will reduce manufacturing and service costs and reduce risk of premature failures and reduce time for product introduction to market. Thus improving, engineering processes and optimizing product quality.

Our Engineers are able to investigate and accurately predict critical design characteristics in order to optimize product performance. In house testing facilities enable us to co-relate predictions for tests

Product optimization is combined with manufacturing process modeling and design optimization.

We use these techniques to establish product manufacturing ability to simulate and evaluate assembly and service conditions and to accommodate product functionality changes.

Thus Kalyani Maxion Wheels has endeavored to achieve best product quality at the optimized cost at just in time delivery and instant service to the customer thereby customer satisfaction to the fullest extent.

Global Relationship of Maxion Wheels



Global Relationship of Maxion Wheels

		DAIMLER	
		IVECO	
ISUZU			
		DAF A PACCAR COMPANY	
KÖGEL		LEYLAND TRUCKS	
		TOYOTA	

PACCAR		SAAB	KÖGEL
Vehicle Factory Jabalpur			