

Marine Newslink October 2019

FEATURE ARTICLE Automotive Spare Parts

PHOTO(S) OF THE MONTH Auto Transportation

BACK TO BASICS QOTM

AUTOMOTIVE SPARE PARTS



An average automobile has around 30,000 individual parts. Each of those parts is either manufactured in house or sourced from a third-party provider. A delay in just one section of the supply chain can slow down the manufacture & distribution of critical components, resulting in shut-down of the production line. As automobile manufacturers & brands move towards just-in-time manufacturing, any impact on the smooth manufacturing & distribution of automobiles will mean inventory shortages & revenue loss. It is thus important that automotive supply chain works flawlessly with thousands of manufacturers suppliers to streamline parts manufacturing & distribution.

Indian auto component manufacturing has emerged as one of the most economically significant industry in the world. The supply chain performance has become one of the most important factors for growth & success of the manufacturing sector, especially for the auto component manufacturing in India. Automotive supply chain has been undergoing tremendous changes while getting fiercely competitive. Primarily, automobile industry will have two types of supply chains. First one is from auto component manufactures to automobile manufacturers & the second one from same or more component manufacturers to dealers & service centres. The prompt supply of spare parts is very important for an efficient after-sales service and an essential aspect for customer satisfaction. In the automotive industry, the variety of parts and components to be kept in stock is extremely large because of the vast range of car models and individual configuration options.

The first chain is very tightly regulated by supply chain managers of the respective automobile manufacturer & hence there are lesser issues or losses reported than in secondary chain.

Secondary chain is largely regulated by dealers & service centres who order parts as per the end-customer's requirement. Most auto manufacturers have leased out spare parts distribution or some have even outsourced entire supply chain management to 3PL service provider in India. Studying the pattern of damages or losses observed in secondary chain of spare parts, four spare parts & components have emerged as most damage prone:

Glasses, mainly windshields - Front & Rear

Most commonly reported part to have received in damaged condition are the windshields. In first supply chain, the windshield manufacturer will ship windshields in custom built crates or pallets & so each windshield is tightly secured in the frame of crates or pallets. However, when shipped from warehouse to dealers or service centres there can be a single windshield, required to be shipped. Either the auto manufacturer spare parts distribution chain or mostly the 3PL service provider will repack single or more windshields in either a custom-built cardboard box, but in India, mostly in custom built wooden crates. These are then loaded along with other components, destined for that location of dealer or service centre. Such

supply chain may require multiple handling at various locations and/or manual handling at these locations.

Windshield is flexible to a great extent & normal transportation perils will not damage them easily. To take a thumb test of their strength & flexibility, we must remember that same windshields hold very securely on our vehicles, even when that vehicle is driven in different temperate zones or over most treacherous geographies. Hence only an extreme act of mishandling or failure in proper packaging can cause damages.

Since transportation & handling is beyond the control of anyone, the best risk mitigation aspects can be applied at packaging only. A proper wooden frame with correct strength/density foam or similar cushioning material at strategic points to support individual windshield is the best defence against logistics challenges.



Chemicals, Oils & Lubricants

Commonly known as liquid gold, most oils, lubricants & Chemicals are transported in one to twenty litres plastic cans. Designs & capacities differ from manufacturer to manufacturer. Most automobile oils & lubricants are supplied by oil refineries. Again, the first chain will be from refineries to manufacturers who will use them in their newly built vehicles. The secondary chain will be supplied to dealers, service centres & even auto component shops.

Here challenges differ by volumes in both the chains. In first chain, instances of leakages are major concern. Since automobile manufacturer will require chemicals, Oils & Lubricants in large volumes, most bigger volumes are packed in twenty litre circular containers, buckets or carboys. Due to the design of buckets they cannot be properly choked when loaded on trucks. If loaded in row & column method, the void space left





between the circumferences causes the buckets to move during transit & some may leak or even rupture due to continuous impacts. The stowage here makes huge difference & carboys or drums should be so loaded that the void space between circumference is kept at a minimum. In other configuration, the void space between them can be filled with some suitable material.

More safer method will be to secure each row with net & then start loading next row. In secondary movements, where the drums or containers may be mixed with other spare parts, it is advisable that such drums & containers are either palletised or sent in single layers & not loaded over any other item.

If such liquid contents are being shipped in 200 litre drums of plastic or metal, these drums can be palletised or banded together or even use of locking mechanisms that can lock drums to restrict them from moving during transit.

Headlights & Tail lights

Headlights & Tail lights are major design component of today's cars. A car headlight can be as big as one & half metre in length by today's designs. Same is also the matter with many tail lights. Most common damages noted are scratch or crack on lens or damages to mounting brackets of lights. Most such lights have three to four mounting brackets & once damaged or broken, the lights cannot be safely fixed on automobile.

In the first chain, the lights are usually sent in bulk form, packed in OEM packaging. However, when sent in secondary chain, individual items may or will be packed. The secondary packaging should be robust enough to withstand transport & handling abuse.

The secondary box should be big & strong enough to carry a fragile item. The unit should

be provided extra protection by wrapping them in bubble wraps. The unit should not come in direct contact with secondary box. Mounting brackets can be provided extra protection by using expanding foam over them. In fact, expanding foam makes for an excellent in-box protection layer for any boxed item.





Robust secondary packaging







Batteries

Being very heavy & full of acidic liquid, batteries pose much more risk than just physical damages. Most commonly reported issue in transportation of batteries is damages to their terminals. Due to possibility of various size & configurations, the stowage of batteries is always a major concern on truck. Not more than three layers should be loaded on the truck. Plywood or similar strength material should be spread as layer divider. Smaller size batteries can be palletised by using layer dividers & banding them securely to the pallet.

When being shipped in secondary chain, where they will be shipped as individual item, it is imperative that they are stowed in bottom layer & wherever possible either are boxed or placed on wide pallet & banded to it.

Secondary packaging will be exposed to uneven weight distribution, stowage, handling & transit abuse, not to mention unpredictable weather condition. Hence its should be & has to be twice as robust as for primary movement. Secondary packaging must also display the packaging symbols like FRAGILE, UPRIGHT, WET/DRY more prominently.

Although every automobile manufacturer will manage risks differently, there are some principles that supply chain can follow to mitigate negative consequences:





- Conduct an extensive risk identification and prioritization exercise to seek out all the potential issues that could hit the automotive supply chain. Prioritize these risks by the impact they could have, the likelihood of them happening and the ease with which they can be mitigated or resolved.
- Get contingency and risk mitigation plans in place with key vehicle parts suppliers and manufacturers. This could include backup manufacturing, alternative logistics providers or even relocating some operations to different countries to take advantage of tariffs or trade deals.
- Analyse the automobile marketplace to understand exactly how consumer demands are changing. Build these findings into overall strategy and understand exactly how these findings filter down into the supply chain.
- Be reactive to risk management & mitigation & take prompt action wherever the possibility of improvement exits. In India, the geographies & temperate conditions change at every few thousand kilometres. Certain risk mitigation solutions that have been successful elsewhere in the world can fail in India.

Due to new automobile models & designs upgrades, the challenges & solutions keep changing constantly but certain sections will always remain vulnerable to transit risks.



Disclaimer: This article takes holistic view of challenges in auto spare parts logistical challenges and is not complete risk assessment

PHOTOS OF THE MONTH AUTO TRANSPORTATION





BACK TO BASICS

QUESTION OF THE MONTH: (Please submit your replies by 25th of each month)

Jupiter Oil Co, Kharag Oils, Super brands, Pelican Oils & Red Seeds Corporation imported bulk cargo of 20000 tons on M.T. Chaitra. Cover taken was ICC A 2009, War & Strikes and Comingled Cargo Clause. M.T. Chaitra first discharged cargo at Kandla & then at JNPT. At JNPT it was found there was shortage of 300 MT. There was no more cargo available on M.T. Chaitra and entire cargo has been discharged.

On checking back, it was found that vessel had discharged excess of 300 MT at the previous port. Meanwhile Jupiter Oil Co, Kharag Oils & Super Brands had already take delivery of cargo at Kandla and it was suspected that Kharag Olls had received excess of 120 Mt, Jupiter 100 tons & Super brand 80 tons. Though it was clear that vessel had discharged excess of 300 MT at Kandla but due to multiple deliveries, actual reconciliation was becoming an issue. Pelican Oils & Red Seeds Corporation filed for shortage claim.

Will the claim be payable?

LAST MONTH'S QUESTION:

Shipment of Insured's transformers on CFR INCOTERMS was aboard a vessel owned by a German ship owner, destined for Nhava Sheva Port in India.

The vessel encountered General Average situation in Persian Gulf and was brought to port of refuge, Jebel Ali. Major activities were required to make the vessel sea worthy for future maritime adventures. The German shipownder, due to lack of financial strength, filed for bankruptcy in the German court. This resulted in termination of all contracts of carriage at the port of refuge, Jebel Ali; because servicing the BLs to final port of call requires adequate funding by ship owners.

Since the transformers were important and critical items for the Importer (Assured under the Marine Cargo policy), they requested the Insurer to cover the additional freight they were going to incur to bring the cargo to the final destination port as mentioned in the original BL. The coverage under Assured's policy was ICC(A). Is the additional freight incurred by the assured to bring the cargo to intended destination is indemnifiable under the policy or not? Please do site the relevant clauses.

LAST MONTH'S ANSWER:

Yes, additional freight is covered under the clause 12 – Forwarding charges of ICC(A).

CORRECT ANSWERS SENT BY: (In order of replies received)

Sajan Christudas - Tata-AIG, Rajkot Bharat Bhushan - Optima Insurance Brokers Pvt Ltd., New Delhi

PLEASE SEND YOUR REPLIES/ANSWERS TO ADDRESSES GIVEN ON LAST PAGE OF THE MARINE NEWSLINK.

IF YOU HAVE ANY COMMENTS / FEEDBACK PLEASE SEND IT TO

Shioram Balachandran

Vijay Pal Singh

CONTACT US

Tata AIG General Insurance Company Limited,

Peninsula Business Park, Tower A, 15th Floor, G. K. Marg, Lower Parel, Mumbai - 400013 www.tataaig.com



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