Marine Loading Arms

- A marine loading arm, also known as a mechanical loading arm, loading arm, or MLA is a device consisting of articulated steel pipes that connects a tankship such as an oil tanker or chemical tanker to a cargo terminal.
LLOYDS STEELS INDUSTRIES LTD. will be manufacturing as per design of FMC and after importing critical components from FMC and assembling the Loading Arms at their works and dispatching each loading arm in two sub-assemblies enabling faster installation at site.

Provides platform with railings and ladders at trunion swivel joint (style 50) and Apex Swivel Joint (style 40). Two maintenance personnel can work for replacing the packing IN SITU with minimum down time and without requirement of heavy cranes for dismantling.

- Fully complies with Oil Companies International Marine Forum (OCIMF) requirements to ensure more safety of the equipment, manpower and improves the life of Loading Arms.
Technical advantageous (contd)

• Loading arms can be accommodated in minimum space and hence more space is available for maintenance & operational staff.

• Provides proven, rigid and reliable state of art hydraulic coupler specifically designed for most turbulence prone area with minimum connecting time and spares are easily available.

• Internals of style 80 swivel joints can be replaced in SITU condition without dismantling the loading arms. Hence no need of replacement of complete swivel joints.
Technical advantageous (contd)

- Swivel joints patented with replaceable snap in races. Hence grooves of swivel joints do not get damaged.

- Provides backup engineering, maintenance and supply of spare parts for next 25 years at economical cost.

- Loading arms can be inspected at various stages of production including balancing test, hydraulic test and yard test.

- Supervision of Erection, installation and commissioning by expert engineers at competitive cost.

- Domestic qualified manufacturer of marine loading arms and provide full service backup at a short notice.
Experience in Loading Arms

- Sole experienced manufacturer of Marine Loading arms in India
- First company in India to enter in the field of fully powered hydraulically controlled LOADING ARMS
- Leading manufacturers of Truck and Wagon Loading Arms for handling different products.
- Trained officials for After Sales & Service to take care of problems encountered with loading arms with short notice period.
- Manufactured and commissioned more than 35 MLA’s form our shop, Installed in all over India
FMC-LSIL collaboration

- Technical collaboration with FMC Technologies SA, France since 1985

- FMC - a multinational industrial conglomerate and world leaders in Loading Arms for more than 50 years

- LSI is manufacturing MLA’S in our shop since 1988 and these MLA’S is in satisfactory operation since many years.
Responsibility of FMC

- Basic design, detailed engineering & fabrication drawings
- Supply of critical components
- Assistance during the assembly and Factory Acceptance Test of the equipment at Lloyds Steel Industries Ltd works as required
- Performance guarantee for complete system
- After sales service support by supplying required spare parts
LSIL Past Record

- Manufactured more than 800 Nos. Marine/Rail/Truck Loading Arms since 1985 for transfer of oil products, chemical products, liquefied and refrigerated gases.

- FMC/UVSL(LSI) have manufactured and supplied
  - 111 Marine Loading/Unloading Arms of various sizes for different services
  - 18 MLAs are equipped with positioning monitoring system.
Esteemed clients of LSIL

- Indian Oil Corporation
- Hindustan Petroleum Corporation
- Bharat Petroleum Corporation
- Chennai Port Trust
- Mumbai Port Trust
- National Aluminium Company Ltd.
- Mangalore Chemicals & Fertilizers Ltd.
- Essar – Vadinar
- Uhde India/ Sanjana Cryogenic
- Elf Gas
- Kandla Port Trust
- Kariakal port
Erection and commissioning of Marine Loadings Arms

- BPCL- JNPT – 6 Nos. MLAs for POL product
- BPCL- Kochi – 4 Nos. MLAs for POL product
- IOCL– Kandla – 2 Nos. MLAs for LPG and 3 Nos. for PO product
- IOCL–Tuticorin – 2 Nos. MLAs for POL product.
- Petroleum Infrastructure Ltd. (PIL) Okha – 1 No. LPG MLA.
- ESSAR-Vadinar – 3 Nos. MLAs for POL product.
- IOCL Paradeep- 4 Nos. MLAS for POL product.
- NALCO- Vaizag-1 No. Trolley mounted MLA for Caustic Soda.
- MCF Manglore- 1 No Trolley mounted MLA for Liquid Ammonia
- Karaikal Port- 1No.Trolley mounted MLA for POL product.
- Chennai Port Trust-6 Nos.MLAS for POL product including 4 Nos. for Crude Oil
- CFL- 1 No. MLA for Liquid Ammonia
- RAPPL Dhabhol-4 Nos. MLAS for LNG product.
Supervision for erection and commissioning of Marine Loading Arms supplied by FMC directly.

- BPCL- JNPT – 6 Nos. MLAs for POL product
- BPCL- Kochi – 4 Nos. MLAs for POL product
- IOCL – Kandla – 2 Nos. MLAs for LPG and 3 Nos. for POL product
- IOCL – Tuticorin – 2 Nos. MLAs for POL product
- Petroleum Infrastructure Ltd. (PIL) Okha – 1 No. LPG MLA
- ESSAR-Vadinar – 3 Nos. MLAs for POL product
MARINE LOADING ARM FOR NALCO
YARD TEST OF MARINE LOADING ARM FOR NALCO
MARINE UNLOADING ARMS
AT CHENNAI PORT TRUST
MARINE LOADING ARM FOR MARG AT KARIAKAL PORT
MARINE LOADING ARM FOR MARG AT KARIAKAL PORT
General View of MLAS ENnore
CLIENT: COROMANDEL INTERNATIONAL LTD, KAKINADA
TRAILER MOUNTED MARINE LOADING ARM ALONG WITH JUMPER ASSEMBLY FOR LIQUID AMMONIA (SIZE: 8” X 50”)

[Image of the trailer-mounted marine loading arm along with the jumper assembly for liquid ammonia]
YARD ERECTION OF MARINE LOADING ARM FOR IOCL PARADIP
Client: Indian Oil Corporation Ltd., Paradeep
Marine Loading Arm
Product: Motor Sprit Size: 12" X 10" X 70' &
Product: Fuel Oil Size 12" X 65' RCMA