INFORMATION REQUIRED FOR DESIGN APPROVAL OF HOISTING MACHINE
(Amusement Park Rides - CATEGORY I)

1. DESIGN APPROVAL LETTER
   - Applicant must be from the Manufacturer / Owner / Controller / Lessee with a letter head of company
   - Letters of application should contain the type of hoisting machine, the model (if applicable), manufacturer and country of manufacturer, the number requested and the signature and name and position.
   - Title of the letter should include the Application for Design of Hoisting Machine.
     Example: Application for Design Approval (2) unit of Hoisting Machine 'Roller Coaster'

2. AMUSEMENT RIDES DESCRIPTION (GENERAL):
   - Name of ride:
   - Type & model:
   - Manufacturer and address:
   - Name of Controller (Registered with DOSH):
   - Design Code:
   - Identification / Serial Number:
   - Place of installation (address):
   - Year built:

3. DESCRIPTION OF DESIGN, CONSTRUCTION AND OPERATION
   - Details of the particular features of the amusement rides
   - Details of operating sequence & any restrictions regarding to user
   - Type of non-permanent structure & usage types of major design features
   - Main dimensions & any space beyond these dimensions required for movement
   - Boundary systems
   - Functional & operational procedures
   - Movement systems & drive types
   - Speeds
   - Acceleration rates
   - Any restriction on types of riders
   - Electrical systems
   - Hydraulic / Pneumatic systems
4. DESIGN AND MANUFACTURING DRAWING IN MALAY OR ENGLISH, A1 SIZED SHOW THE FOLLOWING ITEMS:-

i) General Drawings
Show the plan view, elevation and sections of the non-permanent structure. The scale of these drawings shall be appropriate for the size of the structure. The clearance required for movement shall be indicated on the drawings. All dimensions shall be shown.

ii) Detailed Drawing
- Drawings of slewing, lifting & swiveling mechanisms, including bearings & supports, drives, control systems & movement ranges
- Drawings of carriages, gondolas & similar devices (e.g. seats, back rests, grab devices, locking & safety systems)

iii) Special Drawing (If required)
- Element of drive mechanism of amusement park devices which could expose to the passengers.
- Cylinders & pistons with support points
- Entry & exit routes
- Escape routes
- All dimensions & cross section
- Details of materials
- Structural components
- Welding details
- Fasteners
- Connectors
- Block Zone (roller coaster)

5. DESIGN CALCULATION
Calculation shall include:-
- Structure integrity, stability, loads, and fatigue strength analysis, load bearing capacity and others calculation follows International accreditation.
- Safe positioning (with reference to lifting off, overturning & sliding.
- Fitness for purpose (deformation calculation based on material specification)
- Attachment (as decoration include lamps, loudspeakers and other similar parts)
- Analysis of essential and safety of critical component
- Safety factor

Note: -
All loads & forces shall be taken into consideration (Dead loads, imposed loads, driving & braking forces, wind loads, inertia forces and special loads)
Design calculation made using computer software shall clearly identify the list of inputs and output (result) with SUMMARY explanatory notes.

6. MANUFACTURER CERTIFICATE / CERTIFICATE OF COMFORMITY / CERTIFICATE OF ORIGIN / MANUFACTURER'S LICENSE FROM STATE AUTHORITIES OF PRODUCER (MANUFACTURER LICENSE) - (FOR IMPORTED EQUIPMENT ONLY):-
- Certificate from the manufacturer - confirmation letter from the manufacturer that the machines produced by them or certificate of inspection from the manufacturer (test certificate)
- Certificate of Origin – Certificate issued by the country concerned to verify the machinery come from the country.
- Manufacturing License from the producing countries (manufacturing license) – example of China, the expressed Manufacturer Company Name, address and the types of machines can be built

7. RISK ASSESMENT
Risk Assessment shall consider both hazard and risk.

8. **OPERATION, INSTALLATION, MAINTENANCE & EMERGENCY MANUAL**
   - Manual should contain the means operation, installation, maintenance and emergency operations the whole machine.

9. **HOIST / HYDRAULIC / PNEUMATIC SPECIFICATION AND/OR TESTING CERTIFICATE (RELATED)**
   - Hoist – the hoist / winch mounted on the machine structure for lifting
   - Testing Certificate – Copies of test certificates containing the model and no. Series of hoist, hydraulic cylinder and/or pneumatic cylinder that shows the results.
   - Specifications – Contains details of the hoist, hydraulic cylinder and/or pneumatic cylinder used to be installed on the crane structure.

10. **TEST CERTIFICATE / SPECIFICATION / WIRE DETAILS OF WIRE ROPE OR/AND CHAIN (RELATED)**
    - Testing certificate – Copies of test certificates that contain the details of the wire rope / chain.
    - Wire rope/Chain – must submit specifications showing size, breaking load, type, etc.

11. **SAFETY EQUIPMENT/FEATURES**
    - A list of safety equipment which may be operational in normal use or exceptional cases (e.g. personal safety & restraint systems, emergency lighting & systems to ensure the safe completion of all movements in the movement or event of failure of the drive system).
    - Purpose & functions of each item of equipment and details of possibilities of inspection
    - Fail safe device

12. **LOAD AND FUNCTIONAL TEST PROCEDURE**
    - Load and Function Test Procedures shall describe in detail the procedures the test methods that will be undertaken on the machine before use
    - The procedure where amusement device shall undergo the tests before being put into service.

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**Note for Used Amusement Rides**

Prior to the application of design approval, discussion between Head of Design Section and applicant must be made with reference the history of the amusement devices custom declaration form, maintenance records and tests done by the previous owner. This information's is needed for assessment purpose by department before any application submitted.

- For a more detailed description of Amusement Rides in Malaysia, please refer to the guidelines ‘GUIDELINES ON THE SAFETY MANAGEMENT OF AMUSEMENT PARK DEVICES’ which can be found on the site: http://www.dosh.gov.my/doshV2/
* REMINDER:

a. Application of each **MODEL** must be made in a separate application.
b. Each document must be clear and available in **soft copy format** *. pdf only. Hardcopy application is not accepted for design approval process.
c. For each application, please follow **DOCUMENTS REQUIRED BY CATEGORY FOR DESIGN APPROVAL PROCESS**.
d. Applicants will be **REJECT** if the local hoisting machine makers are not registered with the Department or the manufacturers of **expired / expiring license** as a hoisting machine manufacturer.
e. All certificates and related documents must be in Bahasa Malaysia or English only. If in addition, there needs to be translated in Bahasa Malaysia / English.
f. The Department may request additional information for verification purposes in more detail about the application.
g. Applications can be **REJECTED** if documents submitted are incomplete.

*SPECIAL NOTE :

a. Please use the **browser Internet Explorer 7 & 8** only for the best view of the online system.
b. The size of each attached file can not **exceed 20 MB**
c. The total size of the attached file can **not exceed 297.20 MB** for each application.
d. Name the document as its content.
e. Avoid the drawing set security on PDF format as the system fails to stamp and signature on the drawing.

Any questions please forward to:

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**DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH**

Level 2, 3 & 4, Block D3, Complex D,
Federal Government Administrative Centre,
62530 W.P. Putrajaya, Malaysia.

U/p: Hoisting Machine Unit,
Level 3,
Design Section,
Industrial Safety Division.

Phone: 03-8886 5342 (Level 3 Counters)

Please Connect to the Hoisting Machine Unit Officer
Once complete the required information, please apply online at the following address:

(Best viewed with Internet Explorer 7 or 8 only)

http://www.dosh.gov.my

(Home Page)

CLICK HERE

* Application For Design And Pipeline Approval (SKUD V3)

OR


(Online Application)