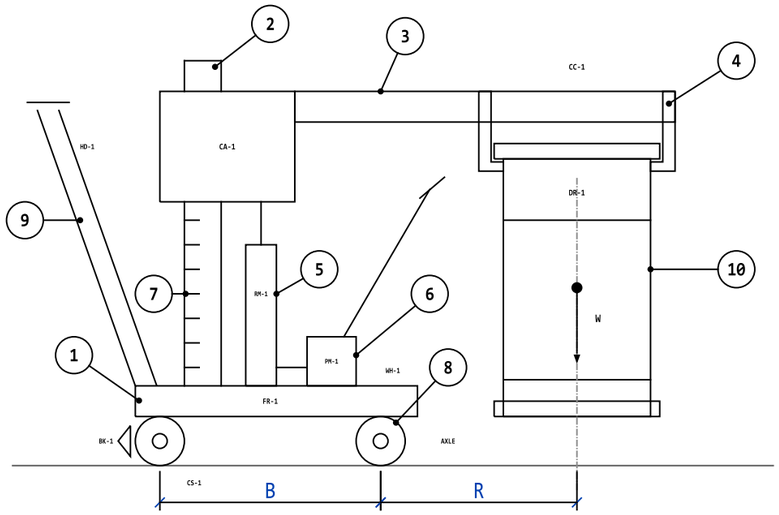
SIDE ELEVATION - DRUM LIFTER

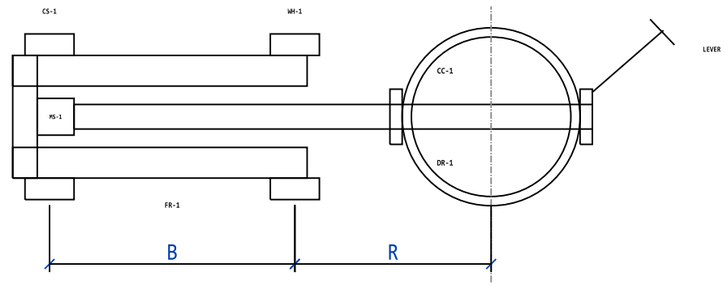
NOT TO SCALE



THE DRUM HANGS FROM THE CHIME CLAMP CC-1 OUT IN FRONT OF THE FRONT AXLE, SO ITS WEIGHT W TURNS THE LIFTER FORWARD ABOUT THE AXLE WITH THE LEVER ARM R;
THE FURTHER OUT IT HANGS THE LESS THE LIFTER CAN CARRY, SO THE RATING IS POSTED FOR THE REACH AND THE WHEELBASE B IS SET FROM IT

PLAN - CLAMP ON THE DRUM

NOT TO SCALE



THE PLAN FROM ABOVE: THE JAWS OF THE CHIME CLAMP CC-1 HOOK UNDER THE ROLLED RIM OF THE DRUM ON OPPOSITE SIDES AND THE LEVER LOCKS THEM,
SO THE DRUM HANGS FROM ITS RIM AND NO GRIP IS PUT ON THE WALL; THE REACH R IS MEASURED FROM THE FRONT AXLE TO THE CENTRE LINE OF THE DRUM

NOTES

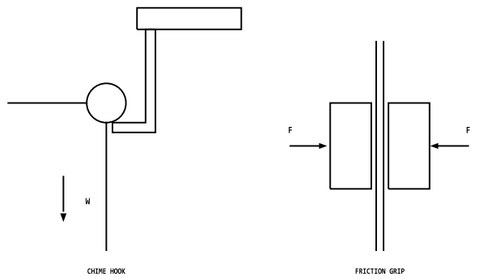
1. REFERENCE ARRANGEMENT OF A HYDRAULIC DRUM LIFTER. LETTERS ARE QUANTITIES SET BY DESIGN: NO WEIGHT, FORCE, SIZE, COUNT OR TIME VALUE IS GIVEN.
2. THE SIDE ELEVATION SHOWS THE FRAME FR-1 ON WHEELS AND CASTORS, THE MAST MS-1 WITH ITS NOTCHED BAR NB-1, THE CARRIAGE AND ARM CA-1, THE CHIME CLAMP CC-1 HOLDING THE TOP RIM OF THE DRUM DR-1, THE RAM RM-1, THE HAND PUMP PM-1 AND THE HANDLE HD-1; THE REACH R AND THE WHEELBASE B ARE LETTERS. THE PLAN SHOWS THE CLAMP ON THE DRUM FROM ABOVE.
3. DETAIL A: THE CHIME CLAMP AND A FRICTION GRIP. DETAIL B: THE RAM AND THE LOCK. DETAIL C: THE TILT ON THE CHIME. NO PERSON IS DRAWN AND THE DRUM IS A PLAIN DRUM.
4. THE SEQUENCE OF A LIFT AND THE CURVES ARE ON SHEET 002. THE RAM, THE HAND PUMP, THE WHEELS, THE CASTORS AND THE BRAKES ARE CATALOGUE ITEMS, BOUGHT IN. THE LIFTER DOES NOT MAKE A DRUM SAFE TO HANDLE AND DOES NOT REPLACE THE HANDLING RULES OF THE SITE.

ITEMS

ITEM	DESCRIPTION
1	FRAME FR-1, WELDED, ON WHEELS
2	MAST MS-1
3	CARRIAGE AND ARM CA-1
4	CHIME CLAMP CC-1 AND LEVER
5	RAM RM-1
6	HAND PUMP PM-1 AND LEVER
7	NOTCHED BAR NB-1 AND PAWL PW-1
8	WHEELS WH-1, CASTORS CS-1, BRAKE BK-1
9	HANDLE HD-1
10	DRUM DR-1, THE LOAD

DETAIL A - THE CHIME CLAMP

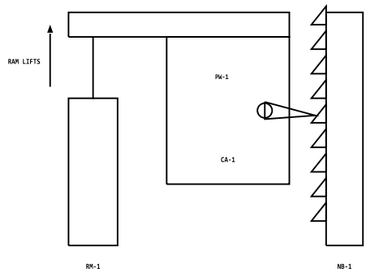
NOT TO SCALE



THE JAW HOOKS UNDER THE ROLLED RIM, SO THE CHIME CARRIES
THE LOAD AND THE WALL CARRIES NOTHING; A FRICTION GRIP MUST
SQUEEZE THE WALL UNTIL FRICTION CARRIES THE WEIGHT, AND A
GREASY, THIN WALL SLIPS OR DENTS FIRST

DETAIL B - THE RAM AND THE LOCK

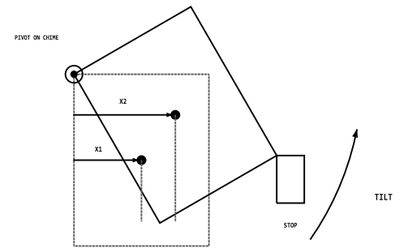
NOT TO SCALE



THE RAM LIFTS THE DRUM, BUT A PAWL ON A NOTCHED BAR CARRIES
IT, SO A WEEPING SEAL CANNOT LET A FULL DRUM DOWN AND NOBODY
WORKS NEAR A LOAD THAT ONLY OIL IS HOLDING; THE PAWL IS
CHECKED ENGAGED BEFORE THE DRUM IS MOVED

DETAIL C - THE TILT

NOT TO SCALE



TO POUR, THE DRUM TILTS ON ITS CHIME AND ITS WEIGHT LINE
MOVES AWAY FROM THE PIVOT (X1 TO X2), SO THE TILT HAS A STOP
AND A SLOW LOWERING, AND IS RATED AT THE TILTED POSITION

REFERENCE CONFIGURATION - NOT FOR CONSTRUCTION

NEOMETRIX DEFENCE LIMITED
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HYDRAULIC DRUM LIFTER - REFERENCE CONFIGURATION

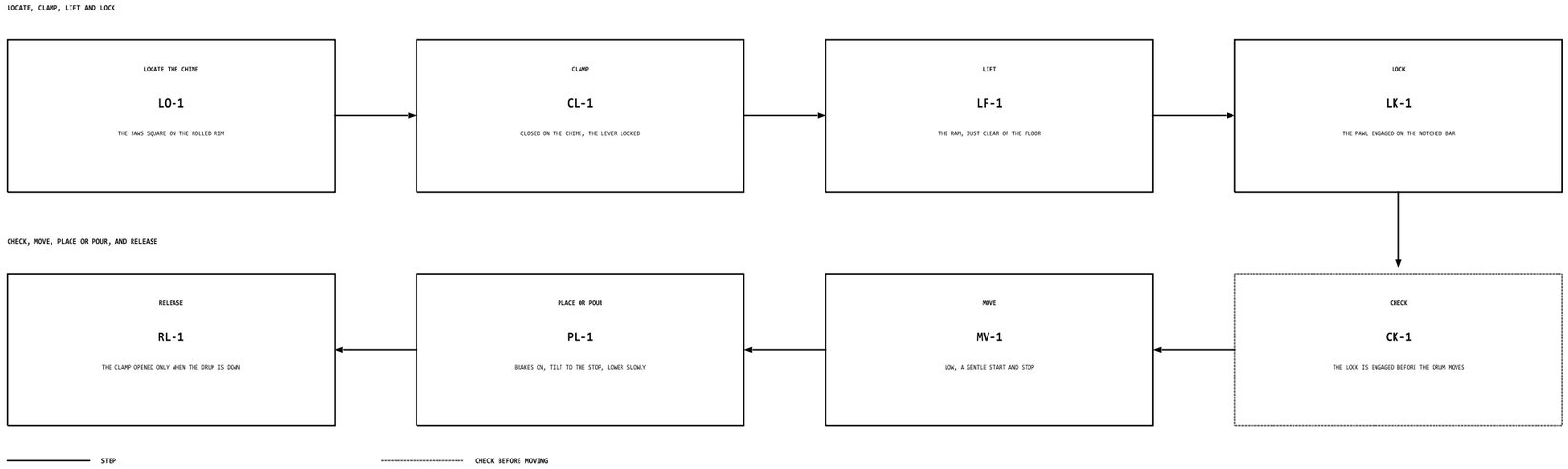
ARRANGEMENT AND DETAILS

THE LIFTER, THE CLAMP ON THE DRUM AND THREE DETAILS

DWG NO	SCALE @ A3	SHEET	REV
NMX-HDL-120-001	NTS	1 OF 2	A
DATE	UNITS	DRAWN	STATUS
23-11-2026	TAGS ONLY	NMX-DO	REFERENCE

SEQUENCE OF A LIFT - HYDRAULIC DRUM LIFTER

NOT TO SCALE

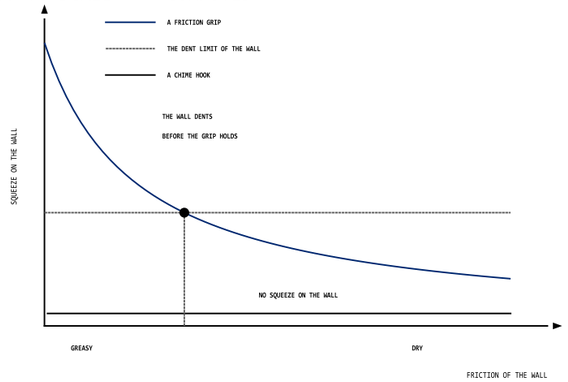


NOTES

1. REFERENCE SEQUENCE AND CURVES OF A HYDRAULIC DRUM LIFTER. TAGS AND LETTERS ONLY: NO WEIGHT, FORCE, SIZE, COUNT OR TIME VALUE IS GIVEN.
2. THE SEQUENCE: LOCATE THE CHIME LO-1, CLAMP CL-1, LIFT LF-1 JUST CLEAR OF THE FLOOR, LOCK LK-1 WITH THE PAWL, CHECK CK-1 THAT THE LOCK IS ENGAGED BEFORE THE DRUM MOVES, MOVE MV-1 LOW AND GENTLY, PLACE OR POUR PL-1 WITH THE BRAKES ON, AND RELEASE RL-1 ONLY WHEN THE DRUM IS DOWN.
3. DETAILS A TO C ARE COMPUTED FROM SIMPLE RELATIONS IN RELATIVE UNITS: A PICTURE OF THE IDEA, NOT A MEASUREMENT. THE ARRANGEMENT IS ON SHEET 001.
4. THE DRUMS, THE LOADS, THE FLOORS AND THE HANDLING RULES COME FROM THE CUSTOMER AND THE AUTHORITY THEY NAME, AND THE RATING IS WORKED OUT AT THE REACH FOR EACH LIFTER. THE LIFTER DOES NOT MAKE A DRUM SAFE TO HANDLE AND DOES NOT REPLACE THE HANDLING RULES OF THE SITE.

DETAIL A - SQUEEZE AGAINST FRICTION

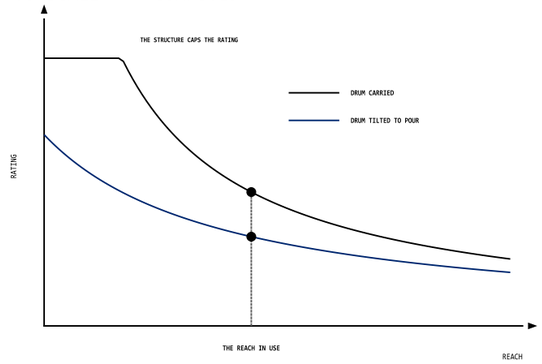
NOT TO SCALE - COMPUTED



A FRICTION GRIP NEEDS A SQUEEZE THAT GROWS AS THE FRICTION FALLS, AND A GREASY WALL DENTS BEFORE THE GRIP HOLDS; A CHIME HOOK PUTS NO SQUEEZE ON THE WALL AT ALL; COMPUTED IN RELATIVE UNITS: A PICTURE OF THE IDEA, NOT A MEASUREMENT

DETAIL B - RATING AGAINST REACH

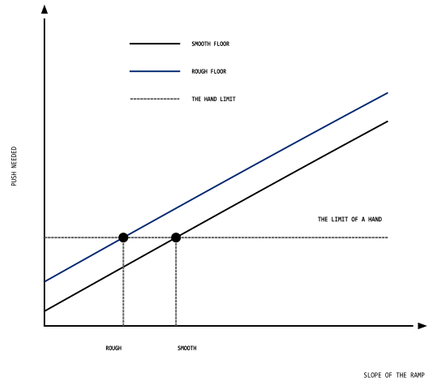
NOT TO SCALE - COMPUTED



THE FURTHER OUT THE DRUM HANGS, THE LESS THE LIFTER CAN CARRY, AND A TILTED DRUM HANGS FURTHER OUT, SO THE RATING IS POSTED FOR THE WORST REACH; COMPUTED IN RELATIVE UNITS: A PICTURE OF THE IDEA, NOT A MEASUREMENT

DETAIL C - PUSH AGAINST SLOPE

NOT TO SCALE - COMPUTED



A STEEPER RAMP AND A ROUGHER FLOOR NEED MORE PUSH; WHERE THE CURVE MEETS THE LIMIT OF A HAND IS THE STEEPEST RAMP THE LIFTER CAN BE PUSHED UP BY HAND: BEYOND IT, CHOCKS AND A WINCH; COMPUTED, RELATIVE UNITS: A PICTURE OF THE IDEA, NOT A MEASUREMENT

REFERENCE CONFIGURATION - NOT FOR CONSTRUCTION

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HYDRAULIC DRUM LIFTER - REFERENCE CONFIGURATION

SEQUENCE AND CURVES

THE SEQUENCE OF A LIFT AND THE CURVES OF THE IDEA

DWG NO	SCALE @ A3	SHEET	REV
NMX-HDL-120-002	NTS	2 OF 2	A
DATE	UNITS	DRAWN	STATUS
23-11-2026	TAGS ONLY	NMX-DO	REFERENCE