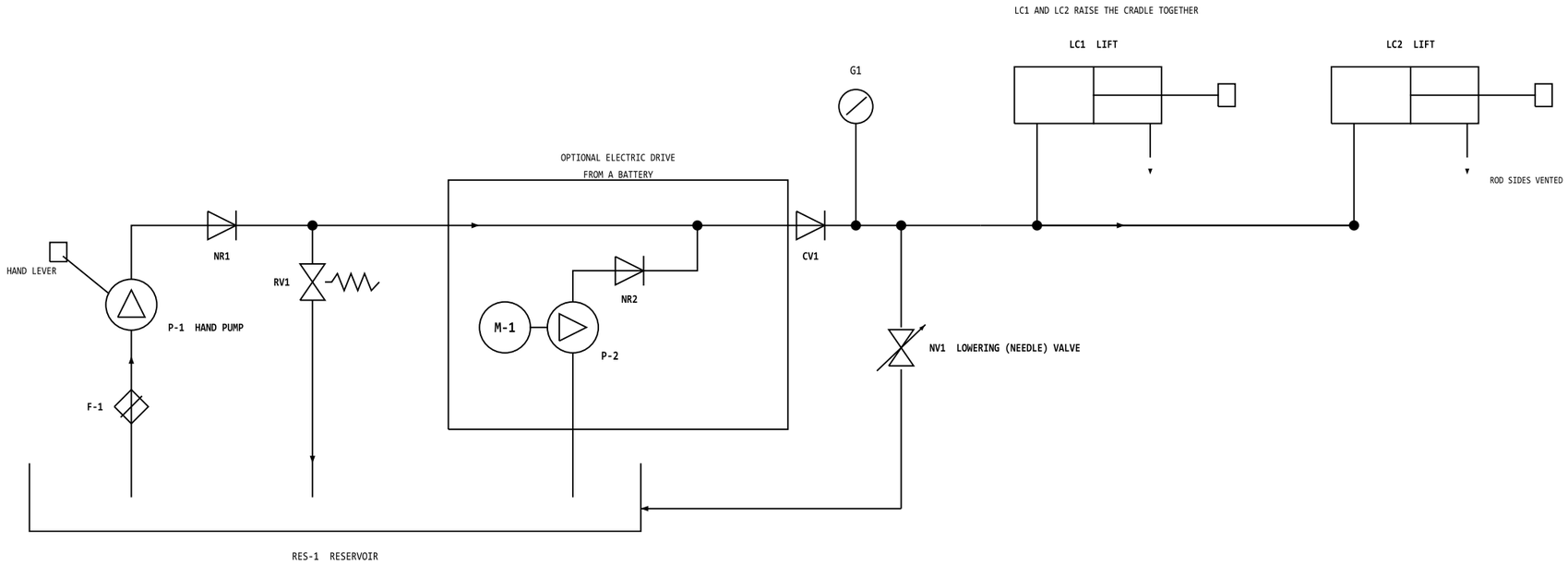
ENGINE INSTALLATION TROLLEY - REFERENCE LIFT CIRCUIT

NOT TO SCALE - TAGS ONLY, NO PROCESS VALUES

HYDRAULIC LIFT CIRCUIT - FROM THE PUMP TO THE TWO LIFT CYLINDERS



CV1 KEEPS THE CRADLE WHERE IT IS WHEN PUMPING STOPS
NV1 LETS THE CRADLE DOWN SLOWLY, TO THE RESERVOIR
RV1 LIMITS THE PRESSURE AND G1 SHOWS IT

NOTES

1. REFERENCE LIFT CIRCUIT OF AN AIRCRAFT ENGINE INSTALLATION TROLLEY, DRAWN IN THE STYLE OF THE GRAPHICAL SYMBOLS OF FLUID POWER. TAGS ONLY: NO FORCE, PRESSURE, FLOW, SIZE, TIME OR QUANTITY VALUE IS GIVEN. THE CYLINDERS ARE DRAWN HORIZONTALLY FOR CLARITY.
2. P-1 IS A HAND PUMP. IT TAKES FLUID FROM RES-1 THROUGH THE STRAINER F-1 AND DELIVERS IT PAST THE NON-RETURN VALVE NR1 TO THE PRESSURE LINE. AN ELECTRIC DRIVE FROM A BATTERY (M-1 AND P-2, DASHED) CAN BE FITTED INSTEAD, THROUGH NR2.
3. RV1 LIMITS THE PRESSURE AND RETURNS FLUID TO RES-1. G1 SHOWS THE PRESSURE. CV1 IS A LOAD-HOLDING NON-RETURN VALVE: WHEN PUMPING STOPS IT KEEPS THE FLUID IN THE CYLINDERS, SO THE CRADLE STAYS WHERE IT IS.
4. LC1 AND LC2 ARE THE TWO LIFT CYLINDERS, ONE IN EACH LIFT COLUMN, FED FROM THE SAME LINE SO THAT THEY RAISE THE CRADLE TOGETHER. THEIR ROD SIDES ARE VENTED.
5. NV1 IS A NEEDLE VALVE. OPENED A LITTLE, IT LETS FLUID BACK TO RES-1 AT A SLOW, CONTROLLED RATE, SO THAT THE CRADLE IS LOWERED UNDER CONTROL. IT STAYS CLOSED WHILE THE ENGINE IS CARRIED, AND IT IS THE MANUAL LOWERING IF POWER IS LOST.
6. LINES THAT CROSS ARE NOT CONNECTED. A DOT SHOWS A CONNECTION.
7. THE FINE ADJUSTMENT IS MECHANICAL: SLIDES AND SCREWS, ON SHEET 002. CATALOGUE ITEMS ARE BOUGHT IN.

LEGEND

- FLUID LINE
- CYLINDER
- RESERVOIR
- RELIEF VALVE
- PUMP
- MOTOR
- STRAINER
- NON-RETURN VALVE
- PRESSURE GAUGE
- NEEDLE VALVE
- VENT TO ATMOSPHERE
- CONNECTION

WHAT EACH STEP DOES

STEP	WHAT HAPPENS
1 RAISE	P-1 (OR M-1 AND P-2) RAISES LC1 AND LC2
2 HOLD	CV1 AND A CLOSED NV1 HOLD THE CRADLE
3 ADJUST	THE SLIDES AND SCREWS ON SHEET 002
4 LOWER	NV1 IS OPENED A LITTLE; THE CRADLE SINKS
5 LIMIT	RV1 OPENS IF THE PRESSURE RISES TOO FAR

REFERENCE CONFIGURATION - NOT FOR CONSTRUCTION

NEOMETRIX DEFENCE LIMITED
ENGINEERED IN NOIDA - INDIA

AIRCRAFT ENGINE INSTALLATION TROLLEY - REFERENCE CONFIGURATION

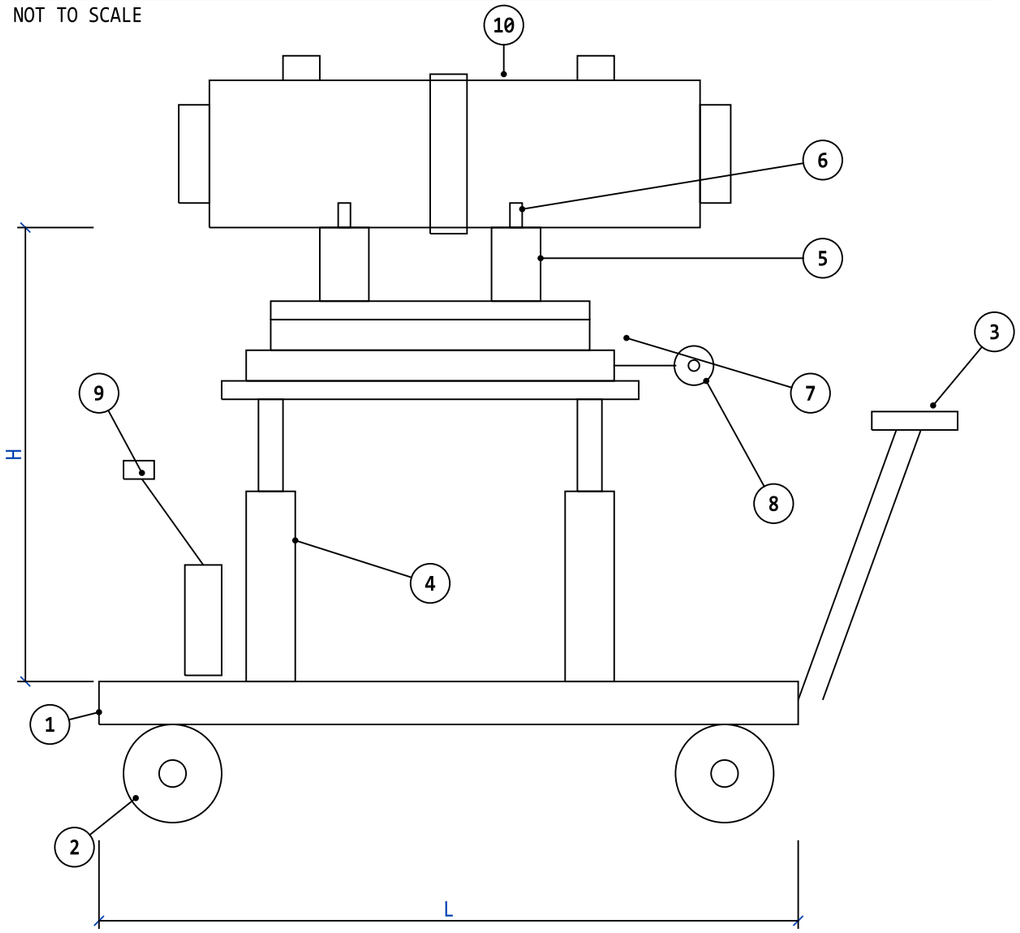
HYDRAULIC LIFT CIRCUIT

HAND PUMP, LOAD HOLDING, TWO LIFT CYLINDERS AND LOWERING

DWG NO	SCALE @ A3	SHEET	REV
NMX-EIT-96-001	NTS	1 OF 2	A
DATE	UNITS	DRAWN	STATUS
12-11-2026	TAGS ONLY	NMX-DO	REFERENCE

ELEVATION - ENGINE INSTALLATION TROLLEY

NOT TO SCALE

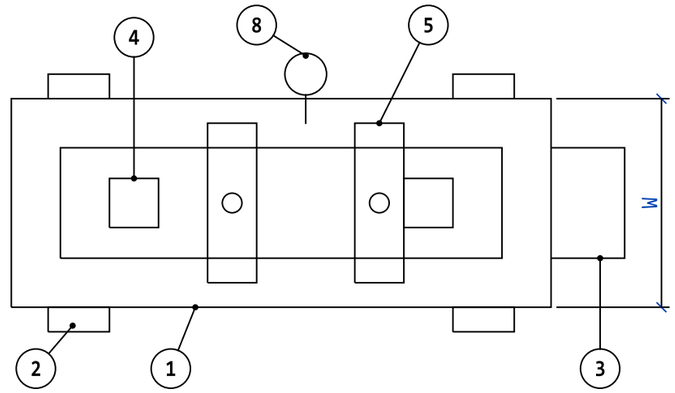


THE ENGINE IS SHOWN FOR REFERENCE ONLY

H IS THE LIFT FROM THE FRAME TO THE CRADLE; L IS THE LENGTH OF THE FRAME

PLAN - FRAME, COLUMNS AND CRADLE

NOT TO SCALE



THE TWO LIFT COLUMNS CARRY THE CRADLE;

THE TWO SUPPORTS TAKE THE ENGINE ACROSS ITS WIDTH

W IS THE WIDTH OF THE FRAME

NOTES

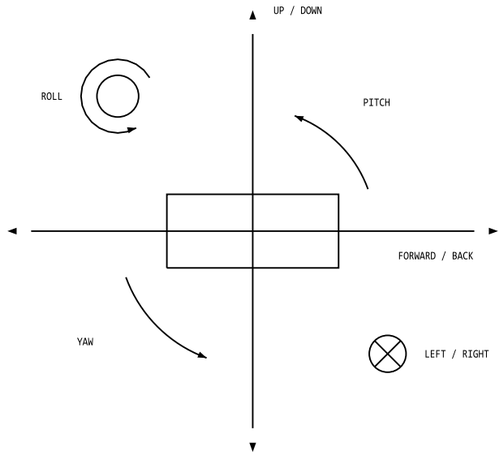
1. REFERENCE ARRANGEMENT OF AN AIRCRAFT ENGINE INSTALLATION TROLLEY. LETTERS ARE DIMENSIONS SET BY DESIGN: NO WEIGHT, SIZE, CAPACITY, FORCE OR QUANTITY VALUE IS GIVEN. THE ENGINE IS SHOWN FOR REFERENCE ONLY AND IS CARRIED AT THE POINTS ITS MAKER NAMES.
2. THE ELEVATION SHOWS THE FRAME ON ITS CASTORS, THE STEERING HANDLE, THE TWO LIFT COLUMNS, THE TWO SLIDES WITH THEIR SCREWS AND HAND WHEEL, THE CRADLE WITH ITS TWO SUPPORTS AND LOCATING PINS, AND THE HAND PUMP. H IS THE LIFT; L IS THE LENGTH OF THE FRAME.
3. THE PLAN SHOWS THE TWO COLUMNS ON THE CENTRE LINE, THE TWO SUPPORTS ACROSS THE WIDTH OF THE ENGINE AND A HAND WHEEL AT THE SIDE. W IS THE WIDTH OF THE FRAME.
4. DETAIL A: AN ENGINE CAN BE OUT OF PLACE IN SIX WAYS, THREE OF POSITION AND THREE OF ANGLE. EACH HAS ITS OWN SLIDE, SCREW OR TILT, SO THAT ONE CORRECTION DOES NOT UNDO ANOTHER.
5. DETAIL B: WHILE THE NUTS ARE TIGHTENED THE LIFT SUPPORTS THE ENGINE'S WEIGHT, SO THAT THE MOUNTING BOLTS LINE UP. IF THE ENGINE PRESSES ON THE BOLTS, THE NUTS HAVE TO PULL IT INTO LINE.
6. DETAIL C: THE CRADLE IS SET OVER THE ENGINE'S CENTRE OF GRAVITY, OR THE ENGINE TIPS AND CAN BE DAMAGED.
7. THE LIFT CIRCUIT IS ON SHEET 001. THE ENGINE MAKER'S OWN PROCEDURE GOVERNS HOW THE ENGINE IS HANDLED AND FITTED. CATALOGUE ITEMS ARE BOUGHT IN.

ITEMS

ITEM	DESCRIPTION
1	FRAME
2	CASTOR WITH BRAKE
3	STEERING HANDLE
4	LIFT COLUMN
5	CRADLE SUPPORT
6	LOCATING PIN
7	SLIDES AND SCREWS
8	HAND WHEEL
9	HAND PUMP AND LEVER
10	ENGINE (SHOWN FOR REFERENCE)

DETAIL A - THE SIX MOVEMENTS

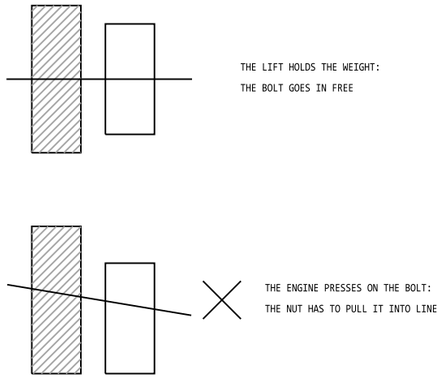
NOT TO SCALE



EACH MOVEMENT IS CORRECTED ON ITS OWN

DETAIL B - THE BOLT GOES IN FREE

NOT TO SCALE



THE LIFT HOLDS THE WEIGHT:

THE BOLT GOES IN FREE

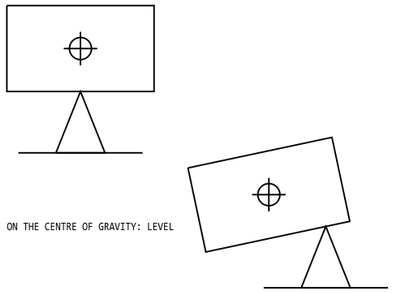
THE ENGINE PRESSES ON THE BOLT:

THE NUT HAS TO PULL IT INTO LINE

WITH THE WEIGHT CARRIED, THE HOLES LINE UP BY THEMSELVES

DETAIL C - CENTRE OF GRAVITY

NOT TO SCALE



ON THE CENTRE OF GRAVITY: LEVEL

OFF IT: THE ENGINE TIPS

THE CRADLE IS SET OVER THE CENTRE OF GRAVITY

REFERENCE CONFIGURATION - NOT FOR CONSTRUCTION

NEOMETRIX DEFENCE LIMITED

ENGINEERED IN NOIDA - INDIA

AIRCRAFT ENGINE INSTALLATION TROLLEY - REFERENCE CONFIGURATION

GENERAL ARRANGEMENT AND DETAILS

TROLLEY, LIFT, ADJUSTMENT, CRADLE AND THE THREE DETAILS

DWG NO	SCALE @ A3	SHEET	REV
NMX-EIT-96-002	NTS	2 OF 2	A
DATE	UNITS	DRAWN	STATUS
12-11-2026	TAGS ONLY	NMX-DO	REFERENCE