

Talyron 4
Roundness and Geometric Analysis Machine
Ford EMDO Facility



Large vibrations occurring at low frequencies at Ford's EMDO (Engine Manufacturing Development) facility required their new Rank Taylor Hobson Talyron 4 machine to be isolated.



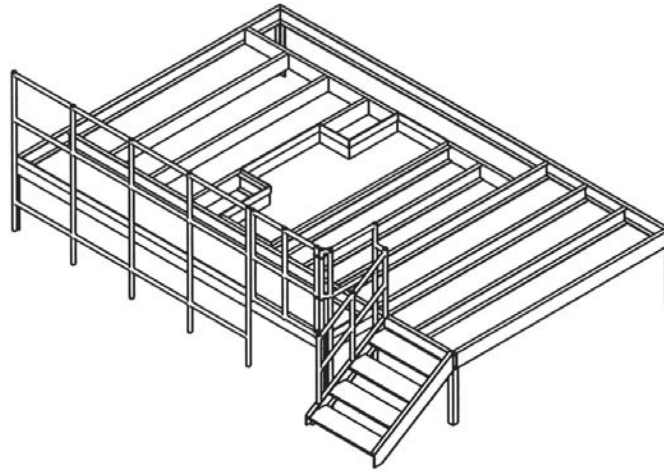
Four custom designed pneumatic isolators support and isolate the inertia mass and the Talyron 4 payload.



Each isolator can lift 13,000 lbs and has a vertical natural frequency of 1.3 Hz to meet the Rank Taylor vibration specifications.



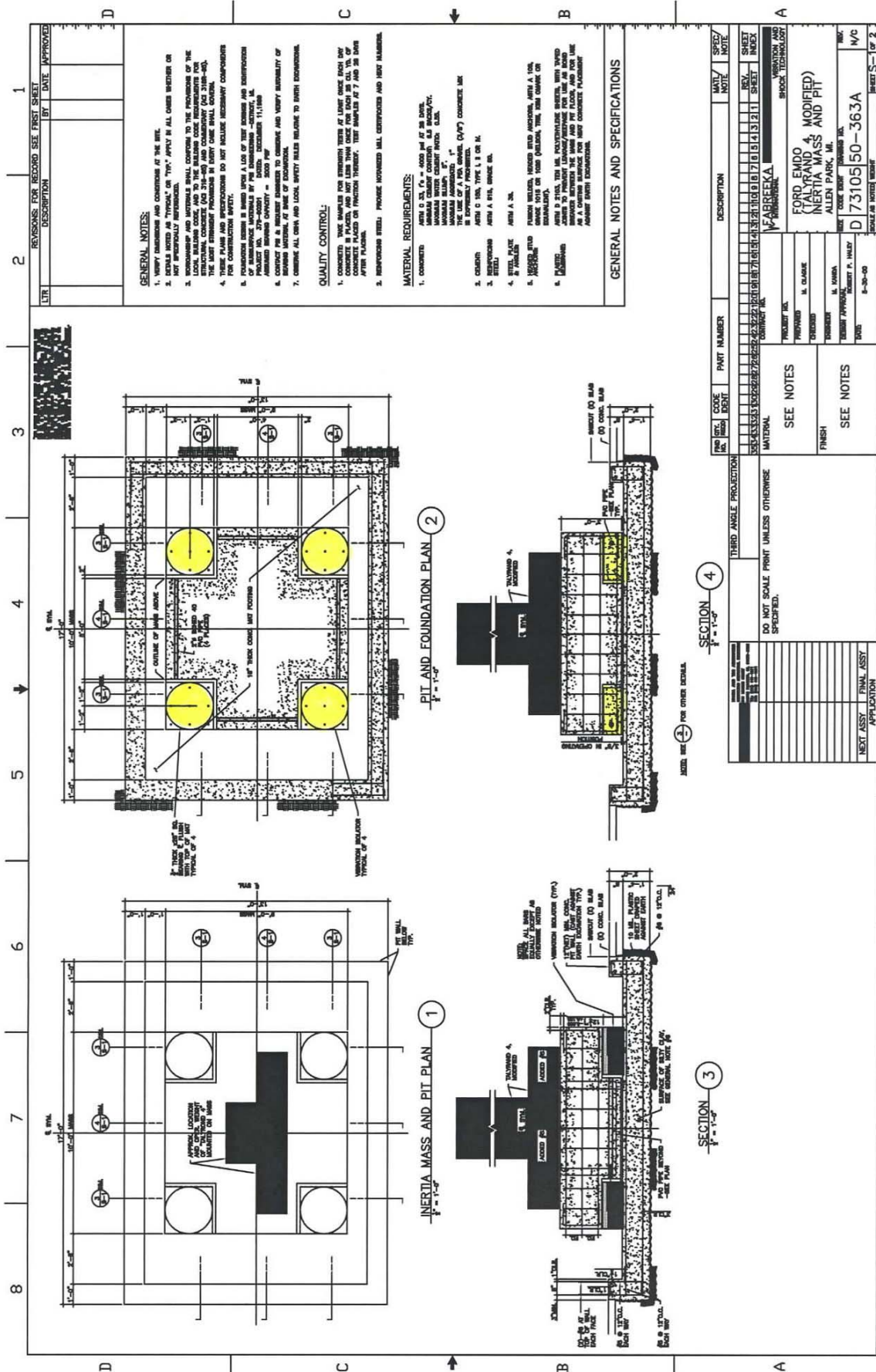
Due to a high water table, the support foundation had to be poured 3 feet higher than the existing floor.



A mezzanine was designed by Fabreeka to extend up and over the isolated mass. This structure allows the operator to stand in front of the machine as normal and have additional engine blocks near the machine waiting to be measured.



The Talyrond 4 machine measures high precision roundness and performs geometric analysis of large, heavy engine blocks, connecting rods and crankshafts at the EMDO facility.



GENERAL NOTES:

1. VERIFY DIMENSIONS AND CONDITIONS AT THE SITE.
2. DETAILS NOTED AS "TYPICAL OR SIMILAR" APPLY IN ALL CASES UNLESS OTHERWISE SPECIFIED.
3. ALL REVISIONS AND CORRECTIONS TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE AND TO THE BUILDING CODE REQUIREMENTS FOR THE STRUCTURE SHALL BE MADE TO THE BUILDING CODE REQUIREMENTS FOR THE STRUCTURE (FOR 316-80) AND COMPLIANT (FOR 316-85).
4. THESE PLANS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
5. FOUNDATION DESIGN IS BASED UPON A LIST OF TEST RESULTS AND INTERPRETATIONS OF TEST RESULTS PROVIDED BY THE CLIENT. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE TEST RESULTS. PRODUCT NO. 374-0001
6. CONTRACTOR SHALL VERIFY DIMENSIONS AND VERIFY SUFFICIENCY OF CONCRETE PLACEMENT AND FINISHING. TEST SAMPLES AT 7 AND 28 DAYS AFTER PLACING.
7. OBTAIN ALL STATE AND LOCAL SAFETY RULES RELATIVE TO THESE DIMENSIONS.

QUALITY CONTROL:

1. CONCRETE TO BE PLACED IN 12" MAXIMUM THICKNESS LAYERS. EACH DAY OF CONCRETE SHALL BE PLACED ON PREVIOUS THICKNESS. TEST SAMPLES AT 7 AND 28 DAYS AFTER PLACING.
2. REINFORCING STEEL: PROVIDE INCREASED BELL COEFFICIENTS AND HOOK BARRING.

MATERIAL REQUIREMENTS:

1. CONCRETE: ASTM C 150, TYPE I OR II OR III. MINIMUM COMPRESSIVE STRENGTH: 4000 PSI. MAXIMUM WATTS: 18.5%.
2. CEMENT: ASTM C 150, TYPE I OR II OR III. MINIMUM COMPRESSIVE STRENGTH: 100%.
3. AGGREGATE: ASTM C 33, TYPE I OR II OR III. MINIMUM COMPRESSIVE STRENGTH: 100%.
4. REINFORCING STEEL: ASTM A 618, GRADE 60.
5. WALKWAY: 1" MINIMUM THICKNESS. 1" MINIMUM BARRING. 1" MINIMUM BARRING. 1" MINIMUM BARRING.
6. PLASTER: 1/2" THICK. 1/2" MINIMUM THICKNESS. 1/2" MINIMUM THICKNESS. 1/2" MINIMUM THICKNESS.

GENERAL NOTES AND SPECIFICATIONS

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

PRO. NO.	REV.	DATE	DESCRIPTION	MAT'L	SPEED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

