

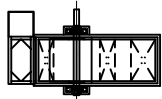
MAIN BUCKET BELT
 LENGTH 2596" = 216'-4"
 WIDTH 31" WITH 5 HOLES FOR
 5/16" BOLTS, 3" HORIZONTAL CENTERS
 END SPACING = 5 1/2"
 (235) SPACES @ 11" LONG
 = 215'-5" (2585")

ELEVATOR BELT AND BUCKETS
 BUCKET QUANTITY = 227 PER ROW x 2 ROWS = 454
 BELT LENGTH, FEET = 216'-4" = 2596" (2 SPACES ADDED)
 BUCKET CENTERS = 11"
 ROWS = 2
 SPLICE OR LAP LENGTH, INCHES = 77" @ 7 SPACES
 HOLES = 2360 @ 5 PER BUCKET
 CALCULATED FROM:
 HEAD PULLEY 42" DIAMETER WITH 1/2" LAGGING
 BOOT PULLEY 42" DIAMETER
 SHAFT CENTERS, INCHES 1172 1/2"

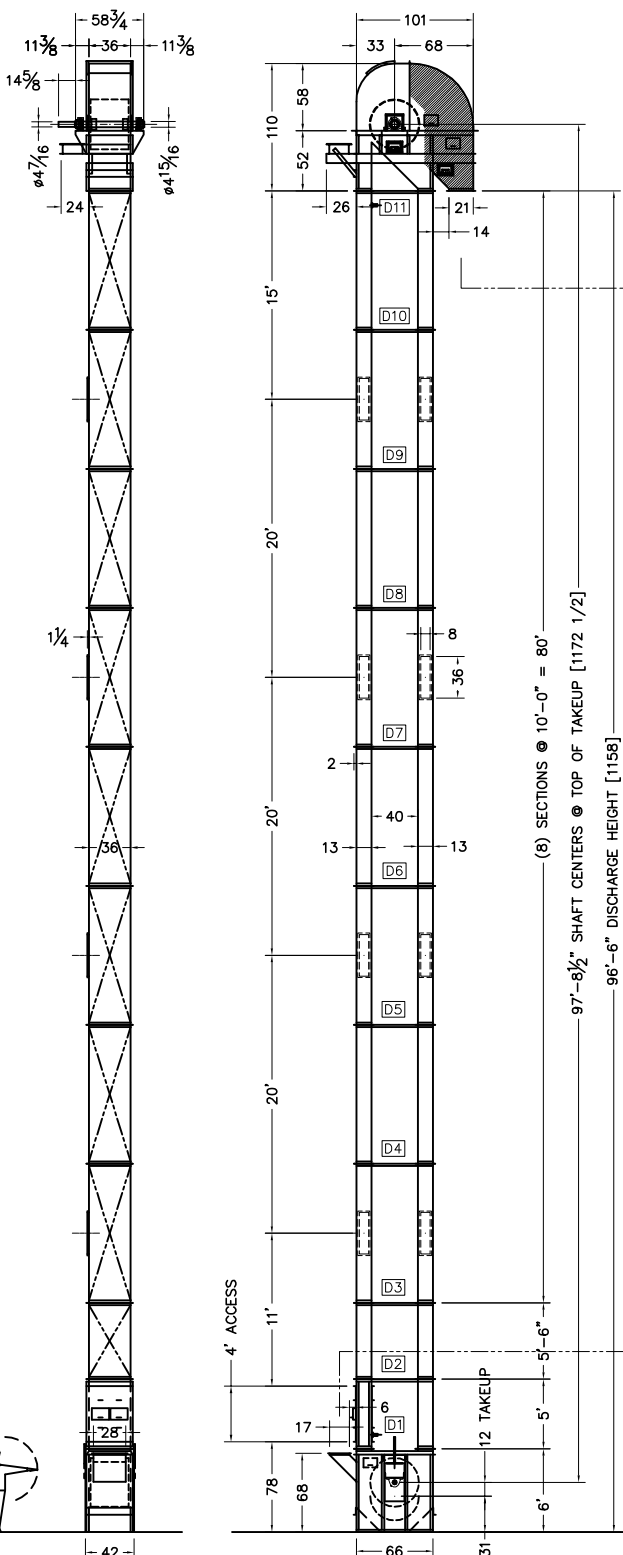
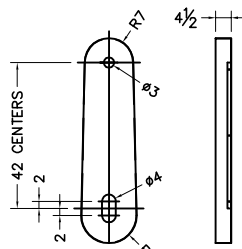
NOTICE:

CASING BLOW-OFF PANELS MAY BE LOCATED ON EITHER SIDE OF ELEVATOR. LOCATE PANELS AWAY FROM LADDERS, WALKWAYS, OR PLATFORMS TO MINIMIZE DANGER TO PERSONNEL IN CASE OF FIRE OR EXPLOSION.

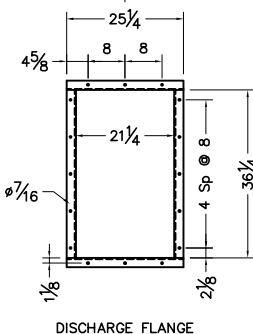
ALL EXPLOSION RELIEF PANELS MUST BE LOCATED OUTSIDE OF ANY ENCLOSED BUILDING STRUCTURE OR VENTED TO OUTSIDE TO REDUCE THE RISK OF SECONDARY EXPLOSION OR FIRE.



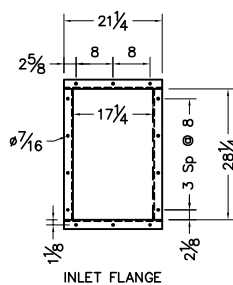
DRIVE GUARD



(8) SECTIONS @ 10'-0" = 80'
 97'-8 1/2" SHAFT CENTERS @ TOP OF TAKEUP [1172 1/2]
 96'-6" DISCHARGE HEIGHT [1158]



DISCHARGE FLANGE



INLET FLANGE

ESSMUELLER MODEL DF14842 BUCKET ELEVATOR WITH 96'-6" DISCHARGE HEIGHT, REQUIRING 40 HP AT 42 RPM, BASED ON USE OF 2 ROWS OF 14" x 8" POLYETHYLENE BUCKETS ON 11" VERTICAL CENTERS @ WATER LEVEL LOADING FOR 15000 CFH OF DDGS @ 32 PCF. BELT SPEED 472 FPM.

DRAWINGS SHOW COMPONENTS AND NOMINAL DIMENSIONS. OPTIONS WILL BE SUPPLIED ONLY IF INDICATED IN THE ORDER ACKNOWLEDGEMENT. IN THE EVENT OF DISCREPANCY, THE ACKNOWLEDGEMENT SUPERCEDES THIS DETAIL.

- (1) ESSMUELLER BUCKET ELEVATOR: DF14842
- (2) DISCHARGE HEIGHT 96'-6" (1158")
- (3) PULLEY SHAFT CENTERS 97'-8 1/2" (1172 1/2") @ TOP OF TAKE-UP
- (4) HP: 40 HP (WITH MINIMUM 15% EFFICIENCY FACTOR)
- (5) HEAD PULLEY RPM: 42
- (6) BELT SPEED: 472 FPM (CALCULATED WITH 1/2" LAGGING)
- (7) SIZE BUCKETS: 14" x 8" MAXI-LIFT HD-MAX
- (8) BUCKETS: POLYETHYLENE WITH VENT PATTERN #4
- (9) BUCKET SPACING 7"
- (10) HEAD CASING 10 GAUGE WITH PILLOW BLOCK BEARING MOUNTS, WIPER LIP
- (11) 2-PIECE HOOD SHELL 14 GAUGE WITH RUBBER SHAFT SEAL
- (12) LAGGED, ALL-STEEL WELDED HEAD PULLEY 42" DIAMETER x 33" CROWN FACE
- (13) DRUM TYPE HEAD PULLEY, WITH 4 15/16" KEYPED XT60 TAPERED BUSHINGS
- (14) LAGGING: 1/2" CRAFT-LAG #501 S.O.F.
- (15) KEYPED 4 15/16" 1045 COLD ROLLED HEADSHAFT WITH E-IMPERIAL PILLOW BLOCK BEARINGS
- (16) HEADSHAFT DIAMETER @ DRIVE END NECKED TO 4 7/16"
- (17) DRIVE SIDE: FAR WITH DISCHARGE INSPECTION DOOR ON NEAR SIDE
- (18) TRUNK CASINGS, FLANGED, CONTINUOUS WELDED: 10 GAUGE
- (19) TRUNK ANGLE FLANGES: 2" x 2" x 1/4"
- (20) BOLT-ON TIE ANGLE @ TRUNK FLANGES: 2" x 2" x 1/4"
- (21) 4'-0" x FULL-WIDTH, BOLTED BELT / BUCKET ACCESS PANELS ON UP LEG CASING SECTION (2 STANDARD)
- (22) HINGED INSPECTION DOOR ON UP LEG ACCESS (1 STANDARD)
- (23) STANDARD BOOT 7 GAUGE WITH STRUCTURAL STEEL MEMBERS
- (24) NON-LAGGED ALL-STEEL WELDED BOOT PULLEY 42" DIAMETER x 33" CROWN FACE WIDTH
- (25) DRUM TYPE BOOT PULLEY, WITH 2 15/16" TAPERED BUSHINGS XT35
- (26) 2 15/16" DIAMETER BOOT SHAFT WITH DLM PILLOW BLOCK BEARINGS
- (27) SCREW BELT TENSION TAKE-UP WITH RUBBER SHAFT SEAL
- (28) (2) CLEAN-OUT SLIDES, 45" INLET ON UP LEG SIDE OF BOOT
- (29) HEAD SHAFT EXTENSION WITH 40 HP MOTOR BASE, FAR SIDE
- (30) GEAR DRIVE SHIPPED UNASSEMBLED
- (31) @ 42 RPM, DRIVE RATIO 1.06:1
- (32) 40 HP RELIANCE STANDARD EFFICIENCY MOTOR, TEFC, 1750 RPM, 3 PHASE, 60 HERTZ, 230/460 VAC, 324T FRAME, 2 1/8" SHAFT
- (33) REDUCER DRIVE, SHAFT MOUNTED, TAPERED BUSHING, CLASS III SERVICE
- (34) ENCLOSED 14 GAUGE OSHA BELT GUARD
- (35) GOODYEAR EAGLE PD B-2660 DRIVE BELT FOR 42.17" CENTERS
- (36) DRIVER SPROCKET GOODYEAR EAGLE PD B-36S
- (37) DRIVER BUSHING QD TYPE SF x 2 1/8" BORE
- (38) DRIVEN SPROCKET GOODYEAR EAGLE PD B-38S
- (39) DRIVEN BUSHING QD TYPE SF x 2 7/16" BORE
- (40) REDUCER TAB407H40, PART #908000
- (41) MAXIMUM BORE 4 7/16" DIAMETER, INPUT SHAFT 2 7/16" DIAMETER
- (42) REDUCER BUSHING TAB407TB x 4 7/16" BORE, PART #908020
- (43) REDUCER BACKSTOP TAB407BS, PART #908103
- (44) REDUCER TIE ROD TA7315/8407RA, PART #907109
- (45) HEAD BEARINGS E-IMPERIAL x 4 15/16" PART #071219
- (46) BOOT BEARINGS D-LOCK DLM x 2 15/16" PART #128697
- (47) 4B WATCHDOG ELITE ELEVATOR MONITORING SYSTEM TO INCLUDE:
 - a. (4) MOTION / ALIGNMENT SENSORS
 - b. (4) BEARING TEMPERATURE SENSORS
 - c. (1) DISCHARGE PLUG SWITCH WITH MOUNT ADAPTER (MOUNTED IN DOWNSPOUT BY OTHERS)
 - d. (1) CONTROL PANEL
- (48) VERTICAL AND HORIZONTAL JACK BOLTS FOR HEAD BEARINGS
- (49) HEAD WEAR POINTS LINED WITH 1/4" URETHANE
- (50) EXPLOSION RELIEF BLOW-OFF PANEL IN HOOD WITH CATCH CHAIN
- (51) EXPLOSION RELIEF BLOW-OFF PANELS ON TRUNGING: CHECK OR SPECIFY LOCATIONS OR CENTER DISTANCE
- (52) PAINT: STANDARD ESSMUELLER BLUE PRIMER
- (53) BELT AND BUCKETS TO SHIP SEPARATELY
- (54) MAIN BELT 216'-4", (2596") LONG
- (55) BELT 31" WIDE WITH 5 HOLES FOR 5/16" DIAMETER BOLTS, ON 3" HORIZONTAL x 11" VERTICAL SPACING
- (56) SPLICE: 7 BUCKET LAP (MINIMUM)
- (57) BELT OR COVERING: FORP 3-PLY 450-PIW RUBBER COVERED
- (58) (454) POLYETHYLENE BUCKETS, PUNCHED STANDARD FOR BELT BUCKETS ARE VENTED WITH PATTERN #4
- (59) (2300) 5/16" x 1 1/2" ELEVATOR BOLTS WITH NYLON INSERT LOCK NUTS
- (60) (100) 5/16" x 2" ELEVATOR BOLTS WITH NYLON INSERT LOCK NUTS
- (61) BOLTS ARE NORWAY #1
- (62) TWO BOLTED LAGGING ACCESS PANELS IN HEAD
- (63) TWO BOLTED BUCKET WIPER ACCESS PANELS IN HEAD
- (64) LAGGING INSPECTION DOORS ON HEAD / HOOD: NEAR SIDE
- (65) BOOT INSPECTION DOORS: FAR SIDE
- (66) (340) CASING ASSEMBLY BOLTS 3/8"-16 x 1 1/2", WITH HEX NUT, LOCK WASHER, AND (2) FLAT WASHERS EACH

UNLESS SPECIFIED, THE FOLLOWING STANDARDS WILL BE USED

- [1] DRIVE SIDE: NEAR SIDE
- [2] SHAFT-MOUNTED REDUCER IS DODGE TAB407H40
- [3] 40 HP 230/460VAC 3PH 60HZ RELIANCE STANDARD EFFICINEY MOTOR
- [4] KEYPED HEAD SHAFT EXTENSION FOR DRIVE SUPPLIED BY ESSMUELLER
- [5] MOTORS TO 7-1/2 HP WITH TORQUE-ARM REDUCER-MOUNTED BASE LARGER MOTOR MOUNT IS PLATFORM AT UP LEG END OF HEAD
- [6] OSHA-SPECIFIED GUARD FOR DRIVE SUPPLIED BY ESSMUELLER
- [7] HINGED DISCHARGE THROAT INSPECTION DOORS FAR SIDE
- [8] BOLT-ON TRUNK ACCESS PANEL SECTION WILL BE LOCATED IMMEDIATELY ABOVE ABOVE BOOT SECTION. IF ALTERNATE LOCATION IS DESIRED (WHEN BOOT IS IN A PIT), LOCATION MUST BE SPEDIFIED.
- [9] SWITCHES, OTHER ELECTRICAL COMPONENTS: TE (DUST TIGHT) IS STANDARD. XP (EXPLOSION PROOF) IS OPTIONAL
- [10] BELT, BUCKETS, AND DRIVE COMPONENTS SHIPPED SEPARATELY FROM ELEVATOR
- [11] SHOVEL POCKET, BOOT INSPECTION DOOR, SPEED SENSOR LOCATED ON DRIVE SIDE UNLESS SPECIFIED
- [12] ESSMUELLER ELEVATORS ARE DESIGNED TO SUPPORT PLATFORMS AND DRIVE COMPONENTS ONLY AS NORMALLY SUPPLIED. LONG, HEAVY SPOUTS MUST NOT BE SUPPORTED SOLELY BY ELEVATOR DISCHARGE FLANGE. CONTRACTOR OR INSTALLER IS RESPONSIBLE FOR DETERMINING SUPPORT REQUIREMENTS AND PROVIDING ADDITIONAL ANCHORING AND BRACNG
- [13] ESSMUELLER ELEVATORS ARE SELF-SUPPORTING, BUT NOT FREE-STANDING. GUYING IS REQUIRED AT MAXIMUM 20'-0" ELEVATIONS, WITH UPPERMOST WIRE ROPES NOT MORE THAN 5'-0" FROM HEAD SHAFT. REQUIREMENT IS WAIVED FOR ELEVATORS INSTALLED WITHIN SUPPORT TOWERS, OR RIGIDLY ATTACHED TO PERMANENT BUILDING STRUCTURES
- [14] OSHA REQUIRES BREAK IN VERTICAL ASCENT LADDERS AT ELEVATIONS NOT MORE THAN 30'-0" APART, WHICH REQUIRES WORKERS TO CHANGE TO ALTERNATE LADDER AT PLATFORMS. PURCHASER APPROVAL WITH FEWER LADDERS, CAGES, STEP-OFF PLATFORMS THAN REQUIRED ACKNOWLEDGES OSHA STANDARDS WILL BE SUPPLIED IN FIELD.

IMPORTANT: FEDERAL O.S.H.A. REGULATIONS REQUIRE THAT:


" WHEN LADDERS ARE USED TO ASCEND TO HEIGHTS EXCEEDING 20 FEET. LANDING PLATFORMS SHALL BE PROVIDED FOR EACH 30 FEET OF HEIGHT OR FRACTION THEREOF . . . "

" EACH LADDER SECTION SHALL BE OFFSET FROM ADJACENT SECTIONS . . . "

CHAPTER XVII -- PART 1910-27 -- FIG D-10

SOLD TO:
 WW CONSTRUCTORS
 P.O. BOX 231
 HAMEL, MN 55340

SHIP TO:
 WW CONSTRUCTOS
 C/O CENTRAL ILLINOIS ENERGY
 23133 EAST COUNTY HIGHWAY 6
 CANTON, IL 61620

DATE	SYM.	REVISION	DWN.	CHK.
15-MAR-07				
				
The Essmueller Company P.O. Box 1966 Laurel, Mississippi 39441 Phone Toll-Free (800) 325-7175 Fax (601) 649-4320 essmueller@essmueller.com				
DATE:	15-MAR-07	DRAWN BY:	JWL	CHK'D BY:
DWG. NO.:	07-0677 D	SHEET NO.:	4	
DWG. TITLE: DF14842 ELEVATOR x 96'-6" DISCHARGE				

TAG: CE8411