

# THE “HARDOX”

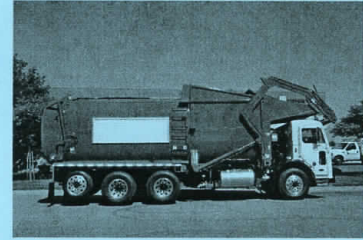


AMREP'S "HARDOX" Elliptical Shaped Front Loader Body, for East and West applications, is now available in all sizes and lengths, with full pushout or hoist ejection. Amrep's unique elliptical shaped construction, using 3/16" Hardox material, allows for a simpler and cleaner design, providing more strength and long wear life capability. Hardox has a hardness rating of 400 BHN and a PSI strength rating of 180,000 tensile and 145,000 yield. Standard features include: Automatic packer with 25 second cycle, 6 1/2" bore packing cylinders with 120,000 lbs. force, 48" high packer blade with full follower, "V" style packer guides with Hardox wear strips mounted floor and sides, 8,000 lbs. loader arms with 16 second dump cycle.

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## **AMREP "HARDOX" FRONT END LOADER UNIT**

### **STANDARD PUSH-OUT UNIT (MODEL AMHFLPO-21 OR 22)**

THE FOLLOWING SPECIFICATIONS ARE FOR 38 – 40 CUBIC YARD FRONT LOADING REFUSE COMPACTION BODIES TO BE MOUNTED ON CUSTOMER'S THREE OR FOUR AXLE CHASSIS.

### ***BODY AND PACKER DESIGN***

THE ELLIPTICAL BODY DESIGN WITH HYDRAULIC BUBBLE TYPE REAR DOOR PROVIDES ADDITIONAL BODY STRENGTH AND EASY UNLOADING. THE PACKING MECHANISM FEATURES A LOW 48" PACKER BLADE WITH FULL FOLLOWER PLATE TO PREVENT REFUSE FROM SPILLING BEHIND BLADE. THE LOW PACKER BLADE IS DRIVEN BY TWO 6 ½" BORE CRISS CROSS MOUNTED CYLINDERS FOR MAXIMUM COMPACTION.

### ***BODY AND PACKER BLADE SPECIFICATIONS***

#### **BODY**

CONSTRUCTION: ELLIPTICAL SHAPE – 3/16" HARDOX AR400, (145,000 PSI YIELD STRENGTH)  
LOWER SIDES- 3/16" HARDOX AR400 HIGH TENSILE STEEL  
UPPER SIDES – 3/16" HARDOX AR400 HIGH TENSILE STEEL  
ROOF – 3/16" HARDOX AR400 HIGH TENSILE STEEL  
FLOOR – 3/16" HARDOX AR400 HIGH TENSILE STEEL

#### **HOPPER**

CONSTRUCTION: LOWER SIDES – 3/16" HARDOX AR400 HIGH TENSILE STEEL  
UPPER SIDES – 3/16" HARDOX AR400 HIGH TENSILE STEEL

#### **HYDRAULIC**

REAR DOOR: HYDRAULIC ACTUATED SINGLE REAR STEEL CONVEX DOOR  
DOOR SHEETS – AR400

#### **HYDRAULIC**

HOPPER COVER: HYDRAULIC ACTUATED SLIDING COVER WITH WARNING LIGHT  
OPERATING INDEPENDENT OF LOADER ARMS AND PACKER.

#### **PACKER BLADE:**

PUSH TYPE "A" FRAME BOX WITH CONCAVE FACE CONSTRUCTION  
WITH SKIDS TO SLIDE IN FULL LENGTH GUIDES ON BODY FLOOR.  
(ASTRALLOY STEEL ON SKIDS)



PACKER: PACKER FACE PLATE – ¼” T-1 AR STEEL  
PACKER SIDES – 3/8” MILD STEEL  
PACKER LENGTH – 30”  
PACKER WIDTH – 80”  
PACKER HEIGHT – 48”  
PACKER GUIDES – 6” X 15.3# CHANNEL FULL LENGTH OF BODY  
WEAR GUIDES – ASTRALLOY WEAR STRIPS

PACKER FOLLOWER: ATTACHED TO TOP OF PACKER BLADE TO PREVENT REFUSE FROM COLLECTING IN FRONT AREA OF BODY.  
FOLLOWER FRAME – 2” X 2” SQUARE TUBING  
FOLLOWER COVER – 10 GAUGE HIGH TENSILE STEEL

CAB CANOPY: COMPLETELY COVERS CAB ROOF.  
SIDE AND TOP – 14 GAUGE MILD STEEL

LADDER: RIGHT SIDE OF BODY TO PROVIDE ACCESS TO BODY ROOF.

### ***FRONT LOAD MECHANISM DESIGN***

THE LOADER ARMS ARE DESIGNED TO TRAVEL OVER THE CAB WITH A COMPLETE CYCLE TIME OF 14 – 18 SECONDS. THE LOAD MECHANISM IS CAPABLE OF DUMPING 1 – 8 CUBIC YARD CONTAINERS. THE ARM CYLINDERS ARE PULL TYPE MOUNTED ON THE ARMS. THE LOADER ASSEMBLY INCLUDES STANDARD SIDE FORKS WITH DOCK CAPABILITY.

### ***FRONT LOAD MECHANISM SPECIFICATIONS***

LOADER ARMS: 8.000# CAPACITY, RECTANGULAR TUBING WITH FLAT BAR STRAPS AND REINFORCEMENT GUSSETS AT CORNERS.  
TUBING – 8” X 2” X ¼” WALL 50,000 PSI TENSILE STRENGTH  
STRAPS – 1/2” X 2” FLAT BAR  
GUSSETS – 3/8” PLATE

ARM CROSS SHAFT: COLD DRAWN SEAMLESS TUBING, BOLTED ON  
TUBING – 4 ½” O.D. X ½” WALL 80,000 PSI  
MOUNTING – “U” BOLT HALFCAP WALL MOUNTED ON FRONT OF BODY

ARM CROSS SHAFT BEARINGS: (2) FULL AND (1) HALF BRONZE BUSHINGS GROOVED FOR LUBRICATION.  
FULL BUSHING – 6” O.D. X 4 ½” I.D. 6” LONG  
HALF BUSHING – 6” O.D. X 4 ½” I.D. 3” LONG

DECELERATION VALVE: TO ALLOW FOR MAXIMUM OPERATING SPEEDS WITHOUT DRIVER CORRECTION.

FORKS: STANDARD SIDE POCKET FORKS  
SIDE FORKS – 6” HIGH X 1 ¼” WIDE X 51” LONG

FORK CROSS  
SHAFT: COLD DRAWN SEAMLESS TUBING.  
TUBING – 3 ½” O.D. X ½” WALL 80,000 PSI

FORK CROSS  
SHAFT BEARINGS: (2) BRONZE BUSHINGS, GROOVED FOR LUBRICATION.  
BUSHING SIZE – 4 ½” O.D. X 3 ½” I.D. X 2 ½” LONG

CONTAINER  
STOPS: RUBBER PADS MOUNTED INSIDE FORKS AT CROSS SHAFT

### ***HYDRAULIC SYSTEM AND COMPONENTS***

RESERVOIR: 60 GALLON CAPACITY WITH BREATHER CAP, SHUT OFF VALVE AND  
TANK DRAIN PLUG. A 20 MICRON IN TANK RETURN LINE FILTER  
CARTRIDGE WITH A 20 PSI BYPASS VALVE. VERTICAL BAFFLES, 150  
MICRON REUSABLE SUCTION FILTER.

HOSES AND  
FITTINGS: HEAVY DUTY DOUBLE WIRE BRAIDED AEROQUIP SAE HOSE WITH JIC  
FITTINGS AND SEAMLESS STEEL TUBING.

CONTROL VALVE: COMMERCIAL A-35 WITH BUILT IN RELIEF VALVE.

POWER SOURCE: FRONT PUMP OR P.T.O. (COMMERCIAL OR MUNCIE)

PACKER/EJECTOR  
CYLINDERS: (2) – THREE STAGE TELESCOPIC, DOUBLE ACTING, ALL STAGES  
CHROME.  
FIRST STAGE (PACKING) – 6 ½” BORE  
SECOND STAGE (EJECTION) – 5” BORE  
THIRD STAGE (EJECTION) – 3 ½” BORE  
STROKE – 162 ¾”

ARM  
CYLINDERS: (2) – SINGLE STAGE, DOUBLE ACTING  
BORE – 4”  
STROKE – 48 3/8”  
ROD – 2” CHROME

FORK  
CYLINDERS: (2) SINGLE STAGE, DOUBLE ACTING  
BORE – 3”  
STROKE – 21”  
ROD – 1 ¼” CHROME

REAR DOOR  
CYLINDERS: (2) SINGLE STAGE, DOUBLE ACTING  
BORE – 2 ½”  
STROKE – 35”  
ROD – 1 ¼” CHROME



HOPPER COVER  
CYLINDER: (1) SINGLE STAGE, DOUBLE ACTING  
BORE – 3”  
STROKE – 93”  
ROD – 1 ¼” CHROME

HYDRAULIC OIL: ANTI-WEAR, CORROSION, OXIDATION AND FOAM INHIBITORS  
ISO VISCOSITY GRADE – 46  
API GRAVITY – 31  
VISCOSITY – 220 @ 100 DEG. F.  
FLASH POINT – 430 DEG. F.

HYDRAULIC  
CONTROLS: LEVER OPERATED CONTROLS MOUNTED IN CAB TO THE RIGHT AND  
FORWARD OF OPERATOR AND OUTSIDE ON THE FRONT LEFT SIDE OF  
BODY.  
ELECTRIC/AIR AUTO-PACK CONTROLS FOR PACKER BLADE

### ***MISCELLANEOUS***

LIGHTS: STANDARD I.C.C. LIGHTS AND REFLECTIORS CONFORMING TO  
CALIFORNIA STATE VEHICLE CODE. “TRUCK-LITE” TAIL, STOP, BACK UP  
AND DIRECTIONAL LIGHTS ARE MOUNTED IN THE REAR DOOR.

PAINT: ONE COAT PRIMER AND ONE COAT POLYURETHANE PAINT

CLEAN OUT  
DOORS: TWO DOORS AT FRONT OF BODY (10 X 31”).

MANUALS: TWO OPERATION AND MAINTENANCE MANUALS PER UNIT.

REAR DOOR  
LIQUID CATCH : MADE WITH LIGHT COMPOSITE MATERIAL OR STEEL, INSTALLED  
UNDER REAR DOOR TO PREVENT LIQUID SPILL (IF SEAL IS NOT  
FUNCTIONING PROPERLY.)

### ***OPTIONS***

AIR CONTROLS: AIR CONTROL VALVES FOR INSIDE AND OUTSIDE CONTROLS IN PLACE  
OF LEVER OPERATED CABLE CONTROLS (WILLIAMS WITH FEATHERING  
ABILITY)

HYDRAULIC ADJ.  
FORKS: HYDRAULIC ACTUATED SIDE, BOTTOM OR COMBINATION FORKS  
ADJUSTABLE FROM 35” CLOSED TO 75” OPEN.

DECELERATION  
VALVE DOWN: TO ALLOW FOR MAXIMUM OPERATING SPEEDS ON DOWN STROKE  
WITHOUT OPERATOR CORRECTION.

HOIST  
UNLOADING: HOIST UNLOADING AVAILABLE AT NO CHARGE

BODY SIZE  
VARIATIONS: BODY CAN BE MADE 30 – 40 CUBIC YARDS (INCLUDING HOPPER)

SIGN FRAMES: MADE TO CUSTOMER SPECIFICATIONS

MID BODY TURN  
SIGNALS: DIRECTIONAL LIGHTS MOUNTED AT MID-POINT OF BODY

### ***ESTIMATED BODY WEIGHT***

NOTE: OPTIONS MAY AFFECT TOTAL BODY WEIGHT

ESTIMATED  
BODY WEIGHT: (15,800) \* LIGHTER BODIES AVAILABLE WITH MATERIAL  
MODIFICATIONS.

### ***MINIMUM STEEL SPECIFICATONS***

MILD STEEL: TENSILE STRENGTH – 56,000 PSI  
TENSILE YIELD – 36,000 PSI

HIGH TENSILE  
STEEL: TENSILE STRENGTH – 80,000 PSI  
TENSILE YIELD – 55,000 PSI

T-1 “AR” STEEL: TENSILE STRENGTH – 150,000 PSI  
TENSILE YIELD – 100,000 PSI  
BRINELL –363

HARDOX 400: TENSILE STRENGTH – 180,000 PSI  
TENSILE YIELD – 145,000  
BRINELL – 400