

SPECIFICATION
FOR “KBF-225A” SERIES LOADER
TRUCK MOUNTED KNUCKLE BOOM LOADER
(“A” STYLE OUTRIGGERS, MANUAL JOYSTICKS)

THE UNIT WILL BE USED IN COLLECTION AND LOADING OF BULK TRASH, LIMBS, LEAVES, BUILDING MATERIALS, AND WHITE GOODS, OR OTHER MATERIALS OF THAT NATURE. **UNIT WILL BE MANUFACTURED IN AN ISO 9000:2000 CERTIFIED FACILITY.**

LOADER SPECIFICATIONS

1.0 BOOM:

1.1 TOTAL BOOM LENGTH TO BE 25FT. THE MAIN AND TIP BOOM TO BE 22FT. WITH A 3FT. TELESCOPING SECTION.

1.2 MINIMUM LIFT CAPACITY TO BE 3,000 LBS. @ 22 FT., (INCLUDING GRAPPLE)

1.3 BOOM PEDESTAL TO BE CONSTRUCTED OF HIGH STRENGTH STEEL WITH A MOMENT CAPACITY OF 110,000 FT-LBS. AND SHALL BE MOUNTED BETWEEN REAR AXLE AND CAB FOR MAXIMUM STABILITY.

1.4 BOOM PIVOT SHALL BE MOUNTED TO THE PEDESTAL BY MEANS OF A SLEWING RING\BEARING THAT HAS A MINIMUM CAPACITY OF 513,000 LBS. STATIC LOAD AND 186,000 Ft-LBS. MOMENT. THE BOOM PIVOT-PEDESTAL ASSEMBLY SHALL NOT EXCEED 95 INCHES IN HEIGHT FROM TRUCK FRAME (TRUCK FRAME APPROX. 40 INCHES IN HEIGHT). BOOM PIVOT SHALL BE CONSTRUCTED WITH A SAFETY DEVICE.

1.5 BOOM SHALL HAVE 270 DEGREES ROTATION. A POSITIVE LOCKING PIN SHALL BE PROVIDED TO ALLEVIATE ROTATION WHILE TRANSPORTING.

1.6 BOOM ROTATION SHALL BE ACCOMPLISHED BY A DIRECT HYDRAULIC SWING DRIVE THROUGH A SLEWING (BEARING) RING CAPABLE OF PRODUCING 342,000 INCH-POUNDS MIN. OF TORQUE. THE MOTOR SHALL BE EQUIPPED WITH BOTH COUNTERBALANCE AND PRESSURE RELIEF VALVES.

1.7 ENTIRE BOOM ASSEMBLY SHALL BE DESIGNED WITH A TENSILE STRENGTH TO PROVIDE A SAFETY FACTOR OF 3 TO 1 AT THE RATED LOAD CAPACITY.

1.8 MAIN BOOM AND TIP BOOM SHALL BE CONSTRUCTED OF REINFORCED HIGH STRENGTH STEEL TUBE.

1.9 MAIN BOOM SHALL BE EQUIPPED WITH MECHANICAL STOPS TO PROHIBIT HYDRAULIC CYLINDERS FROM BOTTOMING OUT.

1.10 BOOM PEDESTAL TO BE MOUNTED DIRECTLY TO THE CHASSIS FRAME RAILS. MOUNTING WILL INCLUDE INSIDE FRAME RAIL SUPPORTS AT THE MOUNTING POINTS.

1.11 THE ENTIRE BOOM WILL BE SERVICEABLE DOWN TO THE COMPONENT LEVEL, E.G., EVERY HYDRAULIC HOSE, FLUID TUBES, BRACKET, PIN, ETC. HAVING TO REPLACE SUBASSEMBLIES IN ORDER

TO REPAIR A COMPONENT WILL NOT BE NECESSARY.

1.12 ALL BOOM CONNECTIONS REQUIRING PINS SHALL BE EQUIPPED WITH REPLACEABLE BUSHINGS AND HEAT-TREATED STEEL PINS WITH PROVISIONS FOR LUBRICATION.

2.0 OPERATOR'S STATION:

2.1 OPERATOR CONTROLS SHALL BE CONTROLLED BY MEANS OF HYDRAULIC JOYSTICKS LOCATED ON BOTH SIDES OF THE LOADER (TWO PER SIDE, THREE FUNCTIONS PER JOY STICK)

2.2 A SAFETY FEATURE SHALL BE PROVIDED TO ALLOW ONLY ONE SIDE OF CONTROLS TO FUNCTION AT A TIME. JOY STICKS SHALL FUNCTION ONLY FROM ONE SIDE AT A TIME.

2.3 JOY STICKS SHALL NOT REQUIRE ANY LUBRICATION THEREBY ELIMINATING FREQUENT MAINTENANCE.

2.4 OUTRIGGERS CONTROLLED BY INDIVIDUAL LEVERS LOCATED CONVENIENTLY IN THE CENTER OF THE OPERATOR'S PLATFORM.

2.5 UNIT TO HAVE AN ELECTRIC OPERATED THROTTLE CONTROL TO MAINTAIN PROPER ENGINE SPEED WHEN LOADER IS OPERATED UNDER LOAD. SWITCH FOR THROTTLE CONTROL TO BE MOUNTED ON OPERATOR'S PLATFORM FOR OPERATOR'S CONVENIENCE.

3.0 TRASH GRAPPLE\BUCKET:

3.1 BUCKET SHALL ROTATE 360 DEGREES UTILIZING MECHANICAL STOPS.

3.2 BUCKET IS TO BE OPENED AND CLOSED BY (2) 3½ INCH BORE HYDRAULIC CYLINDERS WITH A CLOSING FORCE\”BITE” OF 4,000 LBS.

3.3 BUCKET IS TO BE 4FT. LONG AND CAPABLE OF OPENING TO 60 INCHES FROM LIP TO LIP.

3.4 BUCKET SHALL BE FABRICATED WITH A BOLT ON REPLACEABLE H.S.H.C. STEEL CUTTING EDGE.

4.0 HYDRAULICS:

4.1 RESERVOIR SHALL BE A MINIMUM OF 50 GALLONS. IT SHALL HAVE A DUAL LEVEL/OIL TEMPERATURE GAUGE ON SIDE OF TANK. AN IN-TANK SUCTION STRAINER IS INCLUDED.

4.2 FILTER SHALL BE A 10-MICRON, RETURN LINE REPLACEABLE MOUNTED ON OUTSIDE OF RESERVOIR.

4.3 MAIN BOOM AND TIP BOOM SHALL CONTAIN PILOT OPERATED CHECK VALVES AS AN INTEGRAL PART OF EACH CYLINDER.

4.4 ALL HOSES SHALL BE RATED AT 4,000-PSI WORKING PRESSURE.

4.5 PORT TUBING THROUGHOUT THE MAIN AND TIP BOOM SHALL HAVE STEEL TUBING RATED AT 4,000

PSI WORKING PRESSURE.

4.6 CONTROL VALVES SHALL HAVE A 24 GPM RATING AT 3,000 PSI AND AN ADJUSTABLE RELIEF VALVE.

4.7 ALL HYDRAULIC CYLINDERS TO BE OF THE “BOLT-ON HEAD GLAND” DESIGN.

4.8 OIL COOLER

4.9 PAC-MAC WILL PROVIDE A COMPUTER PRINTOUT AT TIME OF DELIVERY SHOWING PARTICLE TESTING OF THE HYDRAULIC OIL DONE JUST PRIOR TO THE UNIT BEING SHIPPED IN ORDER TO ILLUSTRATE TOTALLY UNCONTAMINATED OIL.

5.0 POWER SOURCE:

5.1 A HEAVY – DUTY CLUTCH STYLE (HOT SHIFT) PTO AND A HEAVY DUTY TANDEM BI-ROTATIONAL HYDRAULIC PUMP WHICH ALLOWS FOR “MULTIPLE FUNCTION CONTROL” OF THE CRANE FUNCTIONS.

6.0 OUTRIGGERS:

6.1 OUTRIGGERS SHALL BE EXTENDABLE TO A DISTANCE THAT WILL RESIST THE TIPPING MOMENT UNDER MAXIMUM RATED LOAD, AND HAVE PILOT OPERATED HOLDING VALVES.

6.2 THE OUTRIGGERS ARE TO BE EQUIPPED WITH SMOOTH PADS TO CAUSE MINIMUM DAMAGE TO CONTACTED SURFACE.

6.3 OUTRIGGERS SHALL BE “A” FRAME STYLE. THE RETRACTED OVERALL DIMENSION SHALL BE APPROX. 7 FT. 11 INCHES AND THE EXTENDED DIMENSION (AT GROUND LEVEL) SHALL BE APPROX. 9 FT. 8 INCHES.

6.4 OUTRIGGER CYLINDERS FOR STABILIZING LOADER SHALL BE MOUNTED INSIDE TELESOPING LEGS. OUTRIGGER CYLINDERS SHALL HAVE PILOT OPERATED CHECK VALVE TO PREVENT POSSIBLE LEAK DOWN.

7.0 PAINT:

7.1 LOADER SHALL RECEIVE (1) COAT OF HIGH- GRADE PRIMER AND (2) COATS OF HIGH-GRADE ENAMEL PAINT (MANUFACTURER’S STANDARD COLORS).