

# X-TREME DUTY LOG SPLITTER

## WHAT IS THE X-TREME DUTY LOG SPLITTER?

THE EXTREME DUTY LOG SPLITTER OR XDL IS AN INNOVATIVE PIECE OF EQUIPMENT THAT INCORPORATES EVERY FUNCTION OF EVERY LOG SPLITTER ON THE MARKET INTO ONE, EASY TO USE DESIGN. THE XDL WAS DESIGNED WITH THE OPERATOR IN MIND AT EVERY STEP OF THE DESIGN PROCESS.

### DESIGN & CONSTRUCTION

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-RYAN ENGLEKING  
-BEAU FRODERMAN  
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### TECHNICAL ADVISOR

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### PROJECT ENGINEER

-BEN DIETRICH

### SPONSOR

SOUTHPAW CONSTRUCTION PROPRIETOR: GARY JENKINS



### SPECIAL THANKS TO

SCOTT BRAND  
GARRY WILLIAMS



PURDUE UNIVERSITY COLLEGE OF AGRICULTURE  
DEPARTMENT OF AGRICULTURAL & BIOLOGICAL ENGINEERING  
DEVELOPED BY BEAU FRODERMAN, CHAD CAREY,  
NATHAN JENKINS, & RYAN ENGLEKING 4/23/2009

# KEY FEATURES

- THREE SELECTABLE SPLITTING POSITIONS
- 180° OF HYDRAULIC ROTATION AROUND THE HORIZONTAL AXIS
- VERTICAL POSITION FOR STATIONARY SPLITTING
- OPTIONAL REGENERATIVE HYDRAULIC CIRCUIT TO WORK MORE EFFICIENTLY
- OPERABLE "IN THE CAB OR ON THE GROUND"
- ATTACHES UNIVERSALLY TO ANY BRAND OF SKID-STEER
- ERGONOMICALLY ENGINEERED FEATURES
- DESIGNED FOR EASY MAINTENANCE



- ① UPRIGHT HORIZONTAL POSITION
- ② VERTICAL POSITION
- ③ INVERTED HORIZONTAL POSITION

## SPLITTING CYLINDER EXTENSION SPEED

**REGENERATIVE MODE ( 6 TONS OF FORCE )**  
 3.6 SECONDS @ LOW IDLE  
 3.2 SECONDS @ HIGH IDLE

**STANDARD MODE ( 18 TONS OF FORCE )**  
 7.8 SECONDS @ LOW IDLE  
 7.3 SECONDS @ HIGH IDLE



- ④ INSIDE THE CAB OPERATION
- ⑤ ON THE GROUND OPERATION
- ⑥ ERGONOMIC FEATURES (NO-SLIP STEP)

Item	Description	Quantity	Material	Part No.	Rev.
1	Log Splitter	1	Steel	1000	1
2	Round Tubing	2	Steel	1000	1
3	Square Tubing	2	Steel	1000	1
4	Rectangular Tubing	2	Steel	1000	1

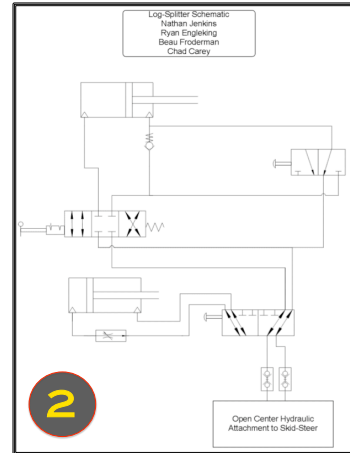
  

Item	Description	Quantity	Material	Part No.	Rev.
1	Round Tubing	2	Steel	1000	1
2	Square Tubing	2	Steel	1000	1
3	Rectangular Tubing	2	Steel	1000	1

Item	Description	Quantity	Material	Part No.	Rev.
1	Round Tubing	2	Steel	1000	1
2	Square Tubing	2	Steel	1000	1
3	Rectangular Tubing	2	Steel	1000	1

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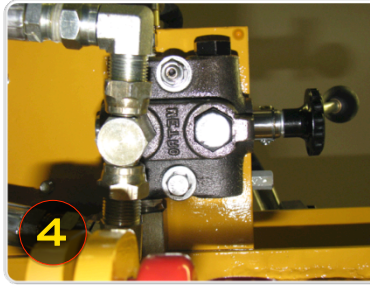


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- ① MATERIAL STRENGTH EQUATIONS
- ② HYDRAULIC SYSTEM SCHEMATIC



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- ③ 3-POSITION, 4-WAY, CLOSED CENTER VALVE
- ④ REGENERATIVE CIRCUIT SELECTOR VALVE
- ⑤ ROTARY MOTION SELECTOR VALVE



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- ⑥ HYDRAULIC CYLINDER POWERING GEAR RACK
- ⑦ GEAR AND RACK ASSEMBLY
- ⑧ ROTATING HUB ASSEMBLY

PRODUCTION COSTS  
\$1,400.00

INTRODUCING THE X-TREME DUTY LOG SPLITTER  
"HOW QUICK CAN YOU SPLIT A RICK?"

