# HEAVY DUTY WRECKER

## OPERATIONS, MAINTENANCE, AND PARTS MANUAL

## JERR-DAN

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#### **FOREWORD**

This manual is intended to serve as a guide to the owner and operator in the safe operation and optimum performance of this Jerr-Dan equipment.

Establishment of good operating habits and familiarity with the equipment and its capabilities combined with good judgement are essential.

Before attempting to operate the unit carefully read all sections of this manual.

Rev. \_\_\_\_\_ Date

## **TABLE OF CONTENTS**

HDL Safety (General)	A-1
Ratings:	
HDL500/280	A-3
HDL600/350 INT	A-5
HDL700/350 IND	A-7
HDL700/350 INT	A-9
HDL1000/530	A-11
HDL1000/565	A-14
HDUL530	A-17
HDUL565	A-19
HDL1200/530	A-21
HDL1200/565	A-23
Safety Chains	A-29
Lift Safety	
Boom Safety	
Safety Warning Decals	A-36
Reporting Safety Decals	A-40
Under Lift Operation	A-41
Reporting Safety Decals	A-44
Frame Forks	A-48
Chain Forks (Optional)	A-50
Chain Hook Adapters (Optional)	A-53
Heavy Duty Tire Lift (Optional)	A-56
Trailer 5th Wheel Plate and Pintle Hook Ball	
Hitch Adapter (Optional)	A-62
Rear Hydraulic Stabilizers	
Integral Spades	A-67
Wrecker Boom Operation	A-69
Maintenance and Lubrication	A-74
Oils and Greases	A-77
Wire Rope Handling and Inspection	A-78
Lubrication Points	A-80
HDL500/280	A-80
HDL600/350 INT	A-82
HDL700/350 IND	A-84
HDL700/350 INT	A-86
HDL1000/530	
HDL1000/565	A-90

Rev. 7
Date 1/17

## **TABLE OF CONTENTS**

Lubrication Points - (con't)	
HDUL530	A-92
HDUL565	A-94
HDL1200/530	A-96
HDL1200/565	A-98
Trouble Shooting	A-100
Hydraulic System	A-100
P.T.O. Functioning Improperly	A-100
Hydraulic Pump	A-101
Winch Functioning Improperly	

Rev. 7
Date 1/17

## **SAFETY (GENERAL)**

The safe operation of your HDL is your responsibility. Read this manual and the truck manufacturer's manual and thoroughly understand them. You can be held legally responsible for injuries or damage resulting from unsafe operating practices.

The manufacturer's recommendations for operating this wrecker can help you avoid unsafe practices and their bad consequences. These recommendations are contained in this manual.

Jerr-Dan Corporation is not responsible for the results of any unsafe practice of wrecker operators or for the failure of the wrecker of its accessories resulting from improper maintenance.

The danger from a vehicle does not cease when it is disabled or wrecked. Recovering or towing vehicles can be dangerous too! The danger threatens wrecker operators and everyone else close by. As a wrecker operator you must develop an awareness of the hazards involved. You must use every safeguard within reason to prevent injuries.

For each step in operating your wrecker develop the habit of asking yourself if it is safe to proceed. Carefully check all rigging before starting a heavy lift or pull.

We cannot warn you of all the possible dangers you will encounter, but we will tell you of the most common hazards that we know about. We also recommend that you receive specialized and advanced training from a professional Towing and Recovery instructor before operating any recovery equipment.



Rev. \_\_\_\_\_ Date

## **WARNING**

## ONLY AUTHORIZED AND TRAINED PERSONNEL SHOULD BE PERMITTED TO OPERATE THIS WRECKER UNSUPERVISED.

IN ORDER TO BE SUFFICIENTLY TRAINED TO OPERATE THIS WRECKER, A PERSON MUST HAVE, AS A MINIMUM, THE FOLLOWING QUALIFICATIONS:

- SATISFACTORILY PERFORMED ALL WRECKER MANEUVERS AND FUNCTIONS UNDER THE SUPERVISION OF FULLY TRAINED PERSONNEL.
- 2. HAVE COMPLETELY READ AND UNDERSTAND
  THE OPERATIONS, MAINTENANCE, AND PARTS,
  MANUAL(S) IN THEIR ENTIRETY FOR THIS
  WRECKER
- 3. HAVE COMPLETELY READ ALL WARNINGS AND PRECAUTIONS ON THIS WRECKER.
- HAVE HAD EXPLAINED TO THEM THE HAZARDS OF MOVING THE PARTICULAR MATERIALS THEY WILL BE LOADING OR UNLOADING.
- 5. UNDERSTAND THE HAZARDS OF OPERATING AT A PARTICULAR JOB SITE, INCLUDING
  - ... THE IMPORTANCE OF STAYING WELL CLEAR OF ALL ELECTRICAL LINES.
  - ... GIVING CONSIDERATION TO GROUND CONDITIONS SUCH AS IRREGULAR CONTOURS, ICE, WATER, OR MUD,
  - ... ANY OTHER CONDITIONS WHICH MAY INTERFERE WITH ORDINARY CAREFUL OPERATION OF THIS WRECKER.

UNTRAINED OPERATORS SUBJECT
THEMSELVES AND OTHERS TO DEATH OR
SERIOUS INJURY AND MAY CAUSE SERIOUS
DAMAGE TO PROPERTY.



Rev. \_\_\_\_\_ Date \_\_\_\_\_

## HDL500/280

BOOM RATING:	
SAE Rating - Boom elevated at 30° Angle¹ Retracted	
Extended	16,000 lbs.
WINCH RATING: (Standard Dp Planetary Gear) Each Drum (Single Speed, Variable Con	
WINCH RATING: (Optional Ramsey Worm Gear Each Drum (Single Speed, Variable Con	•
WIRE ROPE: (Standard Winch)  Working Limit Each Line	6 x 37 EIP IWRC
UNDER LIFT RATING: Full Retracted Full Extended Tow Rating	14,000 lbs. <sup>3</sup>
HEAVY DUTY TIRE LIFT RATING (OPTION):  Lifting Capacity (Each Arm)  Lifting Capacity (Total)  Towing Capacity (Maximum) <sup>4</sup>	14,000 lbs.
5th WHEEL PLATE (OPTION):  Lifting Capacity  Towing Capacity	
PINTLE HOOK BALL HITCH (OPTION): 2 in. Ball Hitch Pintle Hook	
GROSS TRAILER WEIGHT3,000	Maximum Vertical Load



Rev. 4
Date 12/07

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- SAE J706: Surface Vehicle Recommended Practices Rating of Winches
- 3 Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.

MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

GROSS COMBINED WEIGHT RATING (GCWR) - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

**GROSS COMBINED WEIGHT (GCW)** - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### NOTE

These ratings apply to the structural design of the HDL500/280 only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev. 4
Date 12/07

## HDL600/350 INT

BOOM RATING:	
SAE Rating - Boom elevated at 30° Angle¹ Retracted Extended	
WINCH RATING: (Standard Dp Planetary Gear) <sup>2</sup> Each Drum (Single Speed, Variable Control)	25,000 lbs.
WINCH RATING: (Optional Ramsey Worm Gear) <sup>2</sup> Each Drum (Single Speed, Variable Control)	25,000 lbs.
WINCH RATING: (Optional dp Planetary Gear) <sup>2</sup> Each Drum (Single Speed, Variable Control)	35,000 lbs.
WIRE ROPE: (Standard Winch)  Working Limit Each Line	7 EIP IWRC5/8 inch
WIRE ROPE: (Optional Winch)  Working Limit Each Line  Construction 6 x 3  Diameter Standard Length	7 EIP IWRC5/8 inch
WIRE ROPE: (Optional Winch)  Working Limit Each Line  Construction 6 x 3  Diameter  Standard Length	7 EIP IWRC3/4 inch
UNDER LIFT RATING: Full Retracted Full Extended Tow Rating	.16,000 lbs. <sup>3</sup>



Rev. <u>4</u>
Date <u>12/07</u>

## HEAVY DUTY TIRE LIFT RATING (OPTION):

#### 5th WHEEL PLATE (OPTION):

#### PINTLE HOOK BALL HITCH (OPTION):

2 in. Ball Hitch	10,	,000	lbs.	(GTW)	
Pintle Hook	16	,000	lbs.	(GTW)	

GROSS TRAILER WEIGHT.......3,000 Maximum Vertical Load

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
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- 3 Rating Using Axle And Spring Lift Tools
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MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

**GROSS COMBINED WEIGHT RATING (GCWR)** - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

GROSS COMBINED WEIGHT (GCW) - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### NOTE

These ratings apply to the structural design of the HDL600/350INT only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev. <u>4</u>
Date 12/07

## HDL700/350 IND

BOOM RATING:	
SAE Rating - Boom elevated at 30° Angle¹ Retracted	
WINCH RATING: (Standard Dp Planetary Gear) 2 Each Drum (Single Speed, Variable Control)	5,000 lbs.
WINCH RATING: (Optional Ramsey Worm Gear) <sup>2</sup> Each Drum (Single Speed, Variable Control) 25	5,000 lbs.
WIRE ROPE: (Standard Winch)  Working Limit Each Line	IP IWRC5/8 inch
WIRE ROPE: (Optional Winch)  Working Limit Each Line	IP IWRC 5/8 inch
WIRE ROPE: (Optional Winch)  Working Limit Each Line	IP IWRC 3/4 inch
UNDER LIFT RATING: Full Retracted	,000 lbs. <sup>3</sup>



Rev. <u>4</u>
Date <u>12/07</u>

#### HEAVY DUTY TIRE LIFT RATING (OPTION):

#### 5th WHEEL PLATE (OPTION):

#### PINTLE HOOK BALL HITCH (OPTION):

GROSS TRAILER WEIGHT.......3,000 Maximum Vertical Load

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- SAE J706: Surface Vehicle Recommended Practices Rating of Winches
- 3 Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.

MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

GROSS COMBINED WEIGHT RATING (GCWR) - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

**GROSS COMBINED WEIGHT (GCW)** - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### NOTE

These ratings apply to the structural design of the HDL700/350IND only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.

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Rev. <u>4</u>
Date 12/07

## HDL700/350 INT

BOOM RATING:	
SAE Rating - Boom elevated at 30° Angle <sup>1</sup>	
Retracted	
Extended	22,000 lbs.
WINCH RATING: (Standard Ramsey Worm Gear) 2	
Each Drum (Single Speed, Variable Control)	25 000 lbs
Lacif Brain (Single Opeca, variable Control)	20,000 103.
WINCH RATING: (Optional dp Planetary Gear) 2	
Each Drum (Single Speed, Variable Control)	35,000 lbs.
WIRE ROPE: (Standard Winch)	44 770 11.
Working Limit Each Line	
Construction	
DiameterStandard Length	3/6 ITICIT
Staridard Lerigur	200 Feet
WIRE ROPE: (Optional Winch)	
Working Limit Each Line	11,770 lbs.
Construction 6 x	
Diameter	
Standard Length	250 Feet
WIRE ROPE: (Optional Winch)	40.000 11-
Working Limit Each Line	16,800 lbs.
Construction	
Diameter Standard Length	
Standard Length	200 1 661
UNDER LIFT RATING:	
Full Retracted	35,000 lbs. <sup>3</sup>
Full Extended	16,000 lbs. <sup>3</sup>
Tow Rating	80 000 lbs
9	00,000



Rev. <u>4</u>
Date <u>12/07</u>

#### HEAVY DUTY TIRE LIFT RATING (OPTION):

Lifting Capacity (Total) ......14,000 lbs. Towing Capacity (Maximum)4 ......80,000 lbs.

#### 5th WHEEL PLATE (OPTION):

Lifting Capacity ......15,000 lbs. Towing Capacity .......25,000 lbs.

#### PINTLE HOOK BALL HITCH (OPTION):

GROSS TRAILER WEIGHT.......3,000 Maximum Vertical Load

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- SAE J706: Surface Vehicle Recommended Practices Rating of Winches
- Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVÉR IS LOWER.

MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

GROSS COMBINED WEIGHT RATING (GCWR) - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

GROSS COMBINED WEIGHT (GCW) - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### NOTE

These ratings apply to the structural design of the HDL700/350INT only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev. 4 Date 12/07

## HDL1000/530

BOOM RATING: (Two Stage Boom)  SAE Rating - Boom elevated at 30° Angle¹  Retracted	
BOOM RATING: (Optional Three Stage Boom) SAE Rating - Boom elevated at 30° Angle¹ Retracted	35,000 lbs.
WINCH RATING: (Stadard dp Planetary Gear) <sup>2</sup> Each Drum	35,000 lbs.
WIRE ROPE: Working Limit Each Line Construction Diameter Standard Length	6 x 37 EIP IWRC3/4 inch
UNDER LIFT RATING: Full Retracted	17,000 lbs. <sup>3</sup>
DRAG WINCH RATING: (Optional dp Planetary Gea Each Drum (Single Speed, Variable Control)	
WIRE ROPE: (Option 1)  Working Limit Each Line  Construction  Diameter  Standard Length	6 x 37 EIP IWRC



Rev. <u>4</u>
Date <u>12/07</u>

WIRE ROPE: (Option 2) Working Limit Each Line	16,800 lbs.
Construction Diameter	6 x 37 EIP IWRC
Standard Length	200 Feet
HEAVY DUTY TIRE LIFT RATING (OPTION): Lifting Capacity (Each Arm) Lifting Capacity (Total) Towing Capacity (Maximum) <sup>4</sup>	14,000 lbs.
5th WHEEL PLATE (OPTION): Lifting Capacity Towing Capacity	
PINTLE HOOK BALL HITCH (OPTION): 2 in. Ball Hitch Pintle Hook	

- GROSS TRAILER WEIGHT......3,000 Maximum Vertical Load
- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- SAE J706: Surface Vehicle Recommended Practices Rating of Winches
- 3 Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.

MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

**GROSS COMBINED WEIGHT RATING (GCWR)** - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

GROSS COMBINED WEIGHT (GCW) - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).



Rev. 4
Date 12/07

#### NOTE

These ratings apply to the structural design of the HDL1000/530 only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev. 4
Date 12/07

## HDL1000/565

BOOM RATING: (Two Stage Boom)	
SAE Rating - Boom elevated at 30° Angle <sup>1</sup>	
Retracted	100,000 lbs.
Extended	. 35,000 lbs.
BOOM RATING: (Optional Three Stage Boom)	
SAE Rating - Boom elevated at 30° Angle <sup>1</sup>	
Retracted	
Mid	*
Extended	. 24,000 lbs.
MUNICILI DATING. (Oto doud do Dispotory. Oco.)	
WINCH RATING: (Stadard dp Planetary Gear) <sup>2</sup>	05 000 lbs
Each Drum	. 35,000 ibs.
WIRE ROPE:	
Working Limit Each Line	16 900 lbs
Construction	
Diameter	
Standard Length	
Ottaridard Eorigan	200 1 001
UNDER LIFT BATING:	
Full Retracted	56.500 lbs. <sup>3</sup>
Full Extended	
Tow Rating	
J. Company of the com	,
DRAG WINCH RATING: (Optional dp Planetary Gear) <sup>2</sup>	
Each Drum (Single Speed, Variable Control)	. 35,000 lbs.
WIRE ROPE: (Option 1)	
Working Limit Each Line	
Construction 6 x 3	7 EIP IWRC
Diameter	
Standard Length	200 Feet



Rev. <u>4</u>
Date <u>12/07</u>

WIDE DODE (O. II. O)	
WIRE ROPE: (Option 2)	
Working Limit Each Line	
Construction	. 6 x 37 EIP IWRC
Diameter	3/4 inch
Standard Length	
<b>o</b>	
HEAVY DUTY TIRE LIFT RATING (OPTION):	
Lifting Capacity (Each Arm)	7 000 lbs
Lifting Capacity (Total)	14,000 lbs.
Taving Capacity (Maximum)	14,000 lbs.
Towing Capacity (Maximum)4	80,000 lbs.
SUPER HEAVY DUTY TIRE LIFT RATING (OPTION)	
Lifting Capacity (Each Arm)	12,500 lbs.
Lifting Capacity (Total)	25,000 lbs.
Lifting Capacity (Total)Towing Capacity (Maximum) <sup>4</sup>	80.000 lbs.
3 1 1 1 1 1 1	,
5th WHEEL PLATE (OPTION):	
Lifting Capacity	15 000 lbc
Towing Conneits	15,000 lbs.
Towing Capacity	25,000 lbs.
PINTLE HOOK BALL HITCH (OPTION):	
2 in. Ball Hitch	10,000 lbc (GTW)
Pintle Hook	10,000 IDS. (GTW)
GROSS TRAILER WEIGHT3,000 Maxi	mum Vertical Load
GITGGG TIT WELLT TVETGITT III. III. 0,000 IVIANI	a voi tioai 20aa
4 045 10510 0 ( ) ( ) ( ) ( ) ( )	

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- SAE J706: Surface Vehicle Recommended Practices Rating of Winches
- Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.



Rev. \_\_\_4 Date \_12/07 MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

GROSS COMBINED WEIGHT RATING (GCWR) - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

GROSS COMBINED WEIGHT (GCW) - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### **NOTE**

These ratings apply to the structural design of the HDL1000/565 only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev	4	
Date	12/07	

## **HDUL530**

WINCH RATING: (Optional dp Planetary Gear) <sup>1</sup> Each Drum (Single Speed, Variable Control)35,000 lbs.
WIRE ROPE: (Optional 35,000 lbs. dp Planetary Winch)  Working Limit Each Line
WINCH RATING: (Optional dp Planetary Gear) <sup>1</sup> Each Drum (Two Speed, Variable Control) 50,000 lbs.
WIRE ROPE: (Optional 50,000 lbs. dp Planetary Winch)  Working Limit Each Line
UNDER LIFT RATING: Full Retracted
HEAVY DUTY TIRE LIFT RATING (OPTION):  Lifting Capacity (Each Arm)
5th WHEEL PLATE (OPTION):  Lifting Capacity



Rev. 4
Date 12/07

#### PINTLE HOOK BALL HITCH (OPTION):

GROSS TRAILER WEIGHT......3,000 Maximum Vertical Load

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- 2 Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.

MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

GROSS COMBINED WEIGHT RATING (GCWR) - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

GROSS COMBINED WEIGHT (GCW) - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### NOTE

These ratings apply to the structural design of the HDUL530 only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECKTRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev. <u>4</u>
Date 12/07

## **HDUL565**

WINCH RATING: (Optional dp Planetary Gear)  Each Drum (Single Speed, Variable Control)	35,000 lbs.
WIRE ROPE: (Optional 35,000 lbs. dp Planetary Winch) Working Limit Each Line	37 EIP IWRC5/8 inch
WINCH RATING: (Optional dp Planetary Gear) <sup>1</sup> Each Drum (Two Speed, Variable Control)	50,000 lbs.
WIRE ROPE: (Optional 50,000 lbs. dp Planetary Winch) Working Limit Each Line	37 EIP IWRC3/4 inch
UNDER LIFT RATING: Full Retracted Full Extended Tow Rating	17,600 lbs. <sup>2</sup>
HEAVY DUTY TIRE LIFT RATING (OPTION):  Lifting Capacity (Each Arm)  Lifting Capacity (Total)  Towing Capacity (Maximum) <sup>3</sup>	14,000 lbs.
5th WHEEL PLATE (OPTION): Lifting Capacity Towing Capacity	



Rev. 4
Date 12/07

#### PINTLE HOOK BALL HITCH (OPTION):

GROSS TRAILER WEIGHT......3.000 Maximum Vertical Load

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- 2 Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.

MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

**GROSS COMBINED WEIGHT RATING (GCWR)** - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

GROSS COMBINED WEIGHT (GCW) - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### NOTE

These ratings apply to the structural design of the HDUL565 only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev. <u>4</u>
Date 12/07

## HDL1200/530

BOOM RATING:		
SAE Rating - Boom e	levated at 30° Angle1	
		120,000 lbs.
		(/)
WINCH RATING: (Standa	ard do Planetary Gear) 2	
	Speed, Variable Control)	50 000 lbs
24011 214111 (11110	opeca, ranadio centraly in	30,000 100.
WIRE ROPE: (Standard \	Winch)	
	ch Line	16 800 lbs
O O	JII EIIIO	,
Standard Lengtin.		250 Feet
LINDED LIET DATING:/C	tandard)	
UNDER LIFT RATING:(S		E2 000 lba 3
low Haling		80,000 ibs.
HEAVY DUTY TIDE LIET	PATING (OPTION):	
HEAVY DUTY TIRE LIFT		7 000 lb c
	Each Arm)	
	Total)	
lowing Capacity	Maximum) <sup>4</sup>	80,000 lbs.
CURED HEAVY DUTY T	DE LIET DATING (ODTION	١٨-
	RE LIFT RATING (OPTION	
	Each Arm)	
	Total)	
lowing Capacity	(Maximum) <sup>4</sup>	80,000 lbs.
SIL NATI ISSUEDI ATS (ODT	"(AN)	
5th WHEEL PLATE (OPT	,	4 <b>-</b> 000 H
Towing Capacity .		25,000 lbs.
PINTLE HOOK BALL HIT	CH (OPTION):	
		10 000 lbs (GTW)
		, ,
GROSS TRAILER WEIG	HT3,000 Max	ximum Vertical Load
/		Rev4
JERR-DAN	A 01	Date 12/07
An Oshkosh Corporation Company	A-21	Date

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- SAE J706: Surface Vehicle Recommended Practices Rating of Winches
- 3 Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.

MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

GROSS COMBINED WEIGHT RATING (GCWR) - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

GROSS COMBINED WEIGHT (GCW) - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### NOTE

These ratings apply to the structural design of the HDL1200/530 only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev	4
Date	12/07

## HDL1200/565

BOOM RATING:		
SAE Rating - Boom e	levated at 30° Angle¹	
Retracted		120 000 lbs
Exterided		
WINCH RATING: (Standa	ard da Planatary Coar)?	
		50,000 lba
Each Drum (Two	Speed, Variable Control)	50,000 lbs.
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	15.13	
WIRE ROPE: (Standard \		40.000 !!
	ch Line	
Standard Length.		250 Feet
UNDER LIFT RATING:		
Full Retracted		56,500 lbs. <sup>3</sup>
Full Extended		17,600 lbs. <sup>3</sup>
Tow Rating		80,000 lbs.
_		
HEAVY DUTY TIRE LIFT	RATING (OPTION):	
	Each Arm)	7,000 lbs.
	Total)	
	(Maximum) <sup>4</sup>	
ronning Calputing	(6.65)	
SUPER HEAVY DUTY TO	RE LIFT RATING (OPTION	1).
	Each Arm)	
	Total)	
	(Maximum) <sup>4</sup>	
Towning Capacity	(IVIAXIIIIuiii)	00,000 103.
5th WHEEL PLATE (OPT	ION).	
·	•	15 000 lbo
lowing Capacity.		25,000 lbs.
PINTLE HOOK BALL HIT	TCH (OPTION):	
		10.000 lbs. (GTW)
		, ,
GROSS TRAILER WEIGH	HT3,000 Ma	ximum Vertical Load
/		Rev4
JERR-DAN	A 02	Date 12/07
An Oshkosh Corporation Company	A-23	Date _12/01

- SAE J2512: Surface Vehicle Recommended Practices Towing Equipment Ratings and Practices
- SAE J706: Surface Vehicle Recommended Practices Rating of Winches
- 3 Rating Using Axle And Spring Lift Tools
- THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 42,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.

MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.

GROSS COMBINED WEIGHT RATING (GCWR) - THE VALUE SPECIFIED BY THE VEHICLE MANUFACTURER AS GCW.

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

GROSS COMBINED WEIGHT (GCW) - ACTUAL WEIGHT OF THE ENTIRE VEHICLE AT THE GROUND WITH TRAILER OR TRAILERS, INCLUDING VEHICLE EQUIPMENT, DRIVER, PASSENGER, FUEL AND PAYLOAD (EVERYTHING THAT MOVES WITH THE VEHICLE).

#### NOTE

These ratings apply to the structural design of the HDL1200/565 only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECKTRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB.



Rev. <u>4</u>
Date <u>12/07</u>

MANUFACTURED BY:	
DATE OF MANUFACTUREmoyr.	
INCOMPLETE VEHICLE MANUFACTURED BY:	
DATE INC. VEH. MFDmoyr.	
GVWR	
GAWR FRONTwith	
tires, rims, @ psi cold	
GAWR INTERMEDIATE (1)with tires.	
rims, @ psi cold	
GAWR INTERMEDIATE (2) with	
rims, @ psi cold	
GAWR REARwith	
rims, @psi cold	
Conformity of the chassis-cab to Federal Motor Vehicle Safety Standards, which have been previously fully certified by the incomplete vehicle manufacturer or intermediate vehicle manufacture, has not been affected by final-stage manufacture. The vehicle has been completed in accordance with the prior manufacturer's instructions, where applicable. This vehicle conforms to all other applicable Federal Motor Vehicle Safety Standards in effect in:	
moyr.	
VEHICLE IDENTIFICATION NUMBER:	
VEHICLE TYPE:	

## **Certification Decal**



Rev. \_\_\_\_\_ Date \_\_\_\_\_



 Don't use a recovery vehicle that has not been properly maintained. Pay special attention to the mounting bolts, and lubrication of moving parts.



 Don't lower the rear hydraulic stabilizers unless the area under them is clear. Pay particular attention to keeping this area clear.



 Don't use rear spades on paved surfaces unless you are willing to accept responsibility for damage to such surfaces.



 Don't move the recovery vehicle while rear hydraulic stabilizers are extended. Damage is very likely to occur.



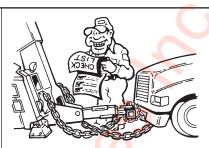
 Don't operate the wrecker's engine faster than recommended. Excessive speeds can damage PTO, hydraulic pumps, and winches.



Don't rely on anti-theft steering locks to secure the steering wheel. Use a special steering wheel clamping device designed for this purpose.



 Don't tow a vehicle that reduces the weight on the front wheels of the wrecker more than 50 percent. (SAE J2512)



 After you have hooked up a vehicle for towing, don't start the tow until you have double checked the hook-up, installed safety chains, and released the parking brakes of the towed vehicle.



 Don't travel with the PTO engaged. Damage to the recovery vehicle's transmission and hydraulic components will occur. Engage it only while operating the controls.



Don't tow a vehicle on its front wheels if they are damaged.



 Don't tow a vehicle on its front wheels unless the steering wheel is secured with the front wheels straight ahead.



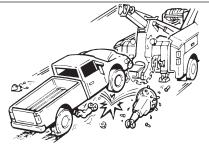
 Never fold the boom up into storage position without removing the towing adapters.

JERR-DAN
An Oshkosh Corporation Company

Rev. \_\_\_\_\_ Date \_\_\_\_\_



 Keep the underlift boom raised high enough off of the ground when roading to avoid dragging it over road surfaces.  Never exceed the front and/or rear axle ratings of your towing equipment.



 Don't tow a vehicle on its drive wheels unless steps have been taken to protect its transmission and differential. Follow the recommendations of the vehicle manu-facturer.
 As an alternative, use a towing dolly.

Rev. 1
Date 5/03

## SAFETY CHAINS AND TIE-DOWN CHAINS MUST BE USED WHEN TOWING AND TRANSPORTING

Safety chains and tie-down chains are provided for use with your new Jerr-Dan Recovery Vehicle. Periodically inspect all chains for any signs of fatigue or damage. Don't overlook the hooks; be sure they have not been bent or deformed. If chain or hook damage is noted, they must be replaced before being used. **Do not use safety chains for recovery operations.** 

Many states require that the towed vehicle be secured to the wrecker body with safety chains. Check your local regulations and use your safety chains. Safety chains are provided for use with your new JERR-DAN.



 Never attach the chain hooks in such a way as to damage brake lines or other functional parts.



 Check that the chain does not become over tensioned when raising the towed vehicle to the towing position or during the towing operation.



 Keep in mind that driving over bumps and hollows and around corners will tend to tighten or loosen the chains.



 Always use two safety chains and two tie-down chains when towing all vehicles, regardless of distance.



Rev. \_\_\_\_\_ Date \_\_\_\_\_

#### LIFT SAFETY

Careful consideration of the immediate surrounding conditions such as the weather, terrain, type or condition of the vehicle to be recovered and the condition and experience of the operator is foremost to the safety and success of the operation.

Your unit is unique. It not only can make lifts from level surfaces, our boom tilt feature allows pickup of vehicles that are parked on both inclines and declines.



 You should never make a lift or movement while close to or under the vehicle being lifted!



 Always use jack stands to support the vehicle if it is necessary to work under it.



 Don't use towing forks that are not of proper size for the pickup requirements.



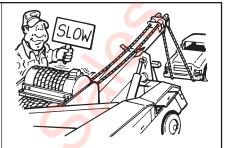
 Magnetic towing lights are required in many areas and are always recommended for safe tows.

#### **BOOM SAFETY**

Your unit is equipped with a wrecker boom and the following safety procedures must be observed:



 Jog the winch control lever to be sure of complete engagement of the clutch gears before making a lift or pull.



 Take up the wire rope cable slowly and be sure the hook is securely set.



Never stand on or straddle a working wire rope.



 Be sure of your lift or pull and do not exceed the working limit of the wire rope or hook. Rig to keep the estimated amount of pull well within equipment ratings. Use wire rope breaking strength ratings only for selecting replacement wire rope.



Never lift or pull over or around a sharp obstacle.



 Never allow the wire rope to cross wrap (criss-cross) on the winch drum. Crushing of the wire rope can cause premature wire rope failure.



 Never completely unwind wire rope from a winch while loaded. Always be sure that a minimum of five (5) wraps of wire rope are on the drum at all times. (SAE J706)



 Never make a lift or pull with the cable attached to light gauge or sheet metal parts; use the frame or major structural members.



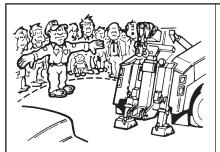
 Never tie down the front end of your wrecker for recovery work of heavy lifts. You will likely damage the truck frame if you do.

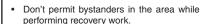


 Don't disengage the winch drum clutch while the wire rope is loaded.



Rev. \_\_\_\_\_







 Be sure all brakes and locks are properly set on the recovery vehicle.



 Never wrap the wire rope around frames or cross members. Use chains and hook the wire rope to the chains.



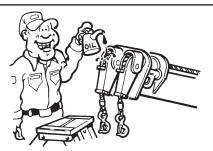
 Never under any circumstances use the winch or boom to lift people!



 Don't use damaged wire ropes on your wrecker. Become familiar with the various types of wire rope damage and periodically inspect the entire wire rope for wear and corrosion. Never use wire rope menders. Replace with similar rated wire rope and hooks.



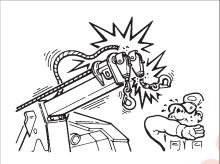
 Death or Serious Injury can occur when working near power lines. Be sure that exact locations of overhead power lines, and other obstructions or hazards are known.



 Lubricate and maintain both the wire rope and winch on regular intervals. (See maintenance charts.) Inspect the wire rope for damage. Damaged, deformed or frayed wire rope should be replaced before use.



 Avoid using the boom raise or boom up control to lift a load. This causes undue stress and weight loading on the rear axle. Use the winch to lift the load.



 Don't continue to wind in wire rope after the hook is against the boom end.



 Caution should be taken when retracting or extending the boom extension while under load.



 All boom placement functions should be made with the winch wire ropes set in "free spool" to avoid over tensioning or breaking the winch wire ropes.



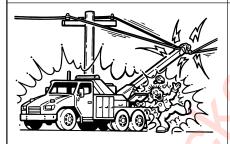
 After rigging wire ropes, don't begin pulling without rechecking connections. Make sure that all wire ropes and snatch blocks are securely attached and cannot accidently pull loose.



 Don't expect your wrecker to tow loads equal to the wrecker ratings. Wrecker ratings apply to loads imposed during recovery with the wrecker properly stabilized.



 Don't exceed ratings of booms, wire ropes, snatch blocks, or winches. Stay within nameplate ratings. Note that boom ratings decrease significantly as the boom is extended.



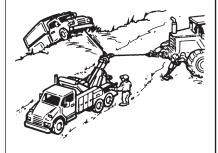
 Do not raise, lower, or move the boom near power lines. Hazardous voltage will cause severe injury or death.



· Don't drive with the wrecker boom extended.



 To avoid birdnesting and premature failure of the wire rope, always keep tension on the wire rope when winding or unwinding.



 When making a pull to the side, always apply an equal load in the opposite direction of the pull to stabilize the wrecker.



Rev. 1
Date 5/03

## **SAFETY WARNING DECALS**

As an extra safety precaution, your unit has specific safety and warning decals affixed to prominent locations. These decals must not be obliterated, removed or painted over. They are there to remind and protect the operator.

SERIAL NO. MODEL NO. UNDER LIFT  UNDER LIFT RATINGS (MAXIMUM)  EXTENDED LBS.  RETRACTED LBS.  WINCH RATING (OPTIONAL)  SAE J706 RATING  EACH DRUM LBS.  CABLE/WIRE ROPE  SIZE FT.	0
TYPE WORKING LOAD LIMIT LBS.	
WRECKER BOOM BOOM RATING (MAXIMUM)  SAE J2512 RATING - BOOM AT 30° ANGLE EXTENDED LBS. MID LBS. O RETRACTED LBS.	0
WINCH RATING  SAE J706 RATING  EACH DRUM LBS.  CABLE/WIRE ROPE	
SIZE FT. TYPE UNORKING LOAD LIMIT LBS.	
READ OPERATION'S MANUAL AND FAMILIARIZE YOURSELF WITH THE OPERATION PRIOR TO USING THIS EQUIPMENT. KNOW THE LOADS BEING MOVED. DO NOT EXCEED RATED CAPACITIES.	
ALL RATINGS ARE BASED ON THE STRUCTURAL CAPACITY OF ABOVE MODEL. ACTUAL TOWING AND RECOVERY CAPACITY MAY BE LIMITED BY THE THE CAPACITY OF THE CHASSIS AND EQUIPMENT SELECTED.	0
MANUFACTURED BY: JLG INDUSTRIES, INC. FOR: <u>したいまたがあい</u> 13224 Fountainhead Plaza Hagerstown, MD 21742 Phone (717) 597-7111 www.jerr-dan.com 10011323	28-A



## OPERATOR'S PRE-TRANSPORT CHECKLIST



▲ CAUTION ▲



REVIEW THIS CHECKLIST BEFORE EACH TOW. FAILURE TO FOLLOW CHECKLIST COULD CREATE A DANGEROUS CONDITION FOR YOU, OTHER MOTORISTS AND PEDESTRIANS, AND MIGHT RESULT IN SERIOUS INJURY OR DEATH.

#### VEHICLE ON UNDER LIFT - CHECKLIST:

- HEED ALL WARNINGS ON EQUIPMENT AND CONTROLS.
- DO YOU HAVE TURNING CLEARANCE FOR TOWED VEHICLE?
- ARE BOTH SAFETY CHAINS ATTACHED FROM TOWING TRUCK TO TOWED VEHICLE?
- IS THERE SUFFICIENT GROUND CLEARANCE FOR TOWED VEHICLE?
- IS THE UNDER LIFT RETRACTED AS CLOSE AS POSSIBLE TO OBTAIN MAXIMUM WEIGHT DISTRIBUTION?
- ARE CHAINS SECURED FIRMLY AROUND THE AXLE OR THE FRAME OF THE TOWED VEHICLE?
- ARE AUXILIARY TOWING LIGHTS ATTACHED TO TOWED VEHICLE?
- DO NOT OVERLOAD. STOP VEHICLE AT ONCE AND REARRANGE LOAD IF YOU NOTICE FRONT END OF TRUCK FEELS LIGHT OR BOUNCES EXCESSIVELY OR IF STEERING FEELS EXCESSIVELY LIGHT. LOSS OF VEHICLE CONTROL CAN RESULT FROM AN OVERLOAD AND CAN CAUSE A SERIOUS ACCIDENT.

C COPYRIGHT 1996 JERR-DAN CORPORATION



#### ONLY AUTHORIZED AND TRAINED PERSONNEL SHOULD BE PERMITTED TO OPERATE THIS WRECKER UNSUPERVISED.

IN ORDER TO BE SUFFICIENTLY TRAINED TO OPERATE THIS WRECKER A PERSON MUST HAVE, AS A MINIMUM, THE FOLLOWING QUALIFICATIONS:

- SATISFACTORILY PERFORMED ALL WRECKER MANEUVERS AND FUNCTIONS UNDER THE SUPERVISION OF FULLY TRAINED PERSONNEL.
- HAVE COMPLETELY READ AND UNDERSTAND THE OPERATIONS, MAINTENANCE. AND PARTS MANUAL(S) IN THEIR ENTIRETY FOR THIS WRECKER.
- HAVE COMPLETELY READ ALL WARNINGS AND PRECAUTIONS ON THIS WRECKER.
- HAVE HAD EXPLAINED TO THEM THE HAZARDS OF MOVING THE PARTICULAR MATERIALS THEY WILL BE LOADING OR UNLOADING.
- UNDERSTAND THE HAZARDS OF OPERATING AT A PARTICULAR JOB SITE, INCLUDING: ... THE IMPORTANCE OF STAYING WELL CLEAR OF ALL ELECTRICAL LINES,
  - ...GIVING CONSIDERATION TO GROUND CONDITIONS SUCH AS IRREGULAR CONTOURS, ICE, WATER, OR MUD, ANY OTHER CONDITIONS WHICH MAY INTERFERE WITH ORDINARY CAREFUL
  - OPERATION OF THIS WRECKER.

UNTRAINED OPERATORS SUBJECT THEMSELVES AND OTHERS TO DEATH OR SERIOUS INJURY AND MAY CAUSE SERIOUS DAMAGE TO PROPERTY.

199



WARNING



A MINIMUM OF 5 WRAPS OF CABLE MUST BE LEFT ON DRUM TO ACHIEVE RATED LOAD. NOT TO BE USED IN THE MOVING OR LIFTING OF PERSONS.



TOWED VEHICLE MUST BE SECURED TO CROSSBAR WHEN USING FRAME FORKS AND SPRING HANGERS

Rev.

6

9/14 Date



# CAUTION A



TO AVOID BIRDNESTING AND PREMATURE FAILURE OF THE WIRE ROPE ALWAYS KEEP TENSION ON THE WIRE ROPE WHEN UNWINDING

253



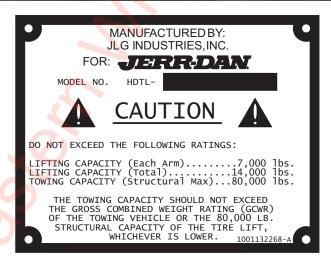
# A CAUTION A



THE BUS BAR GRID MUST BE SECURED TO THE CROSS TUBE AT ALL TIMES WITH THE RETAINING PINS.

TO AVOID DAMAGE TO THE WRECKER BODY THE BUS BARS AND GRID TUBES MUST BE IN THEIR OUTER MOST POSITIONS FOR STORAGE ON THE UNDER LIFT WHEN FOLDED UP IN THE TRAVEL POSITION

278





Rev. 6 Date 9/14





Hazardous voltage. Will cause severe injury or death.

Do not raise, lower or move boom near power lines.

**∆ WARNING** ∧

KEEP HANDS AND FEET CLEAR OF THIS AREA

037

**⚠ WARNING ⚠** 

KEEP AREA UNDER SPADES CLEAR WHILE **OPERATING** 

WARNING A

CONNECTED TO TOW TRUCK BODY WITH SAFETY CHAINS

CAUTION CHECK HYDRAULIC FLUID LEVEL FILL ONLY WITH APPROVED FLUID (SEE OPERATOR'S MANUAL)

203

▲ WARNING ▲



ELECTRICAL HAZARD POWER DISTRIBUTION PANEL

JERRADAN An Oshkosh Corporation Company

Rev. 6

A-39

Date 9/14

#### REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Jerr-Dan Corporation.

If NHTSA receives similar complaints, it opens an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Jerr-Dan Corporation.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to http://www.safercar.gov; or write to:

Administrator NHTSA 400 Seventh Street S.W. Washington, DC 20590

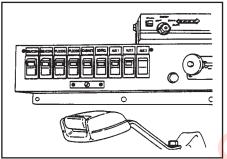
You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

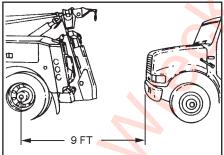


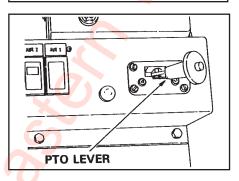
Rev. 7
Date 1/17

#### UNDER LIFT OPERATION

Your HDL is one of the most useful and efficient towing and recovery vehicles available. It is hydraulically powered and careful consideration should be given to the selection of commands. You can afford to work smart, the vehicle will do most of the work for you.







## Follow these simple steps:

- Turn on the safety and work lights. (Switches located on panel on the floor beside the driver's seat.) If the remote hand controller is going to be used the CONTROL switch must be turned "ON".
- 2. Using the rear axle as a guide, position the recovery vehicle within nine (9) ft. of the subject casualty vehicle and as close to the direction of the pull as possible.
- Place the recovery vehicle's transmission gear selector into neutral and set the parking brakes.
- 4. Engage the power take-off (PTO) by moving the control lever. See PTO operator's manual. NEVER TRAVEL WITH THE POWERTAKE-OFF CONTROL ENGAGED. This could result in damage to the PTO unit and the recovery vehicle's transmission.

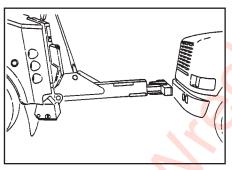
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		<b>4 44</b>

Rev. \_\_\_\_\_ Date \_\_\_\_\_ 5. Adjust the electronic or manual throttle control to elevate the engine speed to approximately 1000-1200 R.P.M. of P.T.O. output shaft speed for optimum performance.

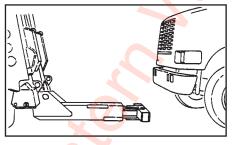


Never exceed 1200 R.P.M. When your hook up is complete, reset the engine idle to normal.

 Confirm the recovery vehicle's position in relation to the casualty vehicle to be towed. Nine (9) ft. is recommended. Reposition the recovery vehicle if necessary. Be sure the casualty vehicle is not in gear or park. Keep the brake set.

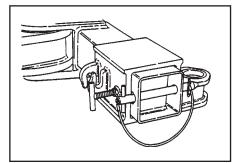


7. Using the tilt fuction, unfold the under lift boom down until it is in the horizontal position.



 Lower the under lift boom to about one (1) in. from the ground and swing the crossbar parallel to the casualty vehicle.

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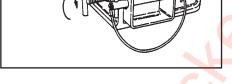
 Attach the lift receivers to the crossbar by sliding them over the ends of the crossbar. Install the retaining pin into the end of the crossbar and secure with the safety pin.



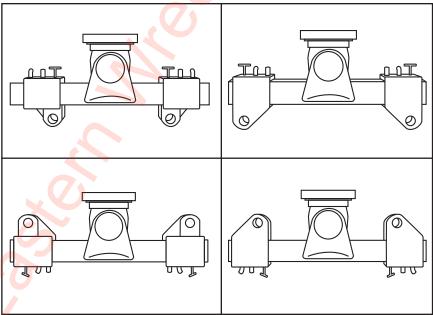
## CAUTION:

The retaining pins must be in place during all towing applications.

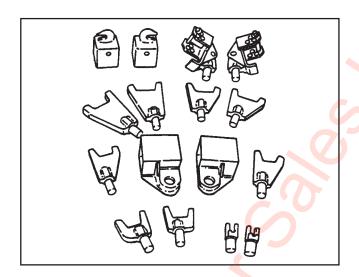
10. Adjust the lift receivers on the crossbar to the desired position and tighten the "T" handles to secure the receivers on the crossbar.



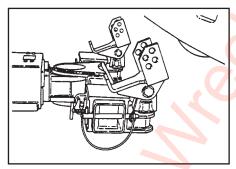
# Various Positions for Lift Receiver Use

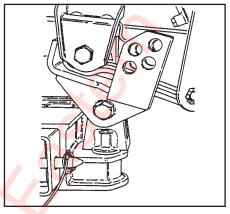


An Oshkosh Corporation Company



## **SPRING BRACKETS**

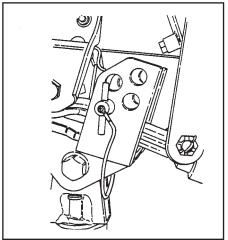




- Insert the spring brackets into the receivers that you put onto the crossbar.
- 2. Extend the under lift boom under the casualty vehicle so that the spring brackets are in the proper position for lifting. Make sure that the spring brackets are against the front part of the spring hanger as shown. At the same time make sure you are not attaching the spring brackets to any steering components.

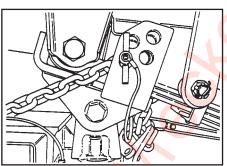
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Rev. \_\_\_\_\_ Date \_\_\_\_\_



3. Raise the boom to lift the casualty vehicle slightly.

 Secure the casualty vehicle to the spring brackets with the retaining pins and safety pins.



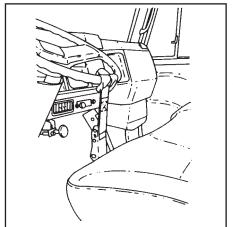
- 5. Secure the casualty vehicle to the crossbar with chains and a chain binder.
- After securing the casualty vehicle and before making the final lift, check to be sure that the casualty's parking brake is released, the transmission is in neutral, and the wheels are straight.

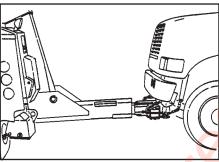


If vehicle to be towed is on a slope, do not release the brake until the load is secured.



Rev	 _
Date	





- It is recommended that the steering wheel be secured by a steering wheel strap for any front or rear tow.
- With the vehicle in neutral and the parking brake released, you can move the vehicle safely up, down, in or out. All of these movements are hydraulically controlled.
- Power retract the under lift until the casualty vehicle is about three (3) to four (4) feet from the back of the recovery vehicle. Leave enough room to maneuver around corners without corner binding or causing contact between the two (2) vehicles. Be sure that the fly boom is extended at least four (4) infrom the middle boom section to ensure unobstructed crossbar pivoting.
- 10. Raise the casualty vehicle into the final towing position observing the far end for sufficient ground clearance. It is possible to set the rear of a front lifted vehicle completely onto the ground, causing damage. Take irregular road surfaces into consideration. Observe the lift function from the side and away from both vehicles if possible.

#### NOTE:

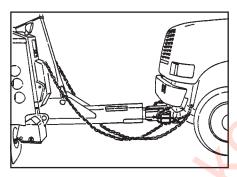
When towing, the Underlift Boom should be as close to horizontal as possible. You will have better turning and manuevering capabilities and it will prolong the life of your under lift and pivot pin.

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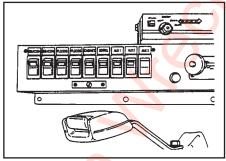


Always follow the chassis manufacturer's recommended procedures for towing. Remove drive lines and drive shafts as directed. Many vehicles can be severely damaged unless these components are removed prior to towing.

11. Be sure to maintain sufficient ground clearances with the bottom of the casualty vehicle.



- 12. Attach the safety chains and auxiliary towing lights.
- 13. Hook-up and connect air and braking systems.



14. If the remote hand controller was used, turn the CONTROL switch "OFF". (Switch is located on panel on the floor.)



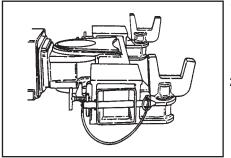
Never fold the boom up into the storage position without removing the towing adapters from the crossbar receivers.



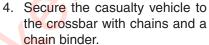
The use of secondary tie-down chains is recommended. Install the tie-down chains between the axle or substantial chassis component and the towbar.

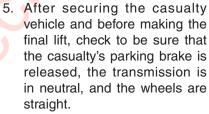
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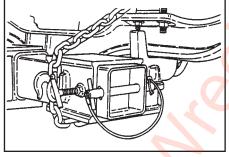
#### FRAME FORKS

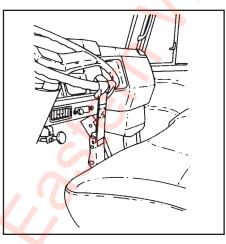


- Choose the frame forks that are best suited to your needs and insert them into the receivers on the crossbar.
- Extend the under lift boom under the vehicle so that the frame forks are in the proper position for lifting. At the same time make sure you are not attaching the frame forks to any steering components.
- 3. Raise the boom to lift the casualty slightly.









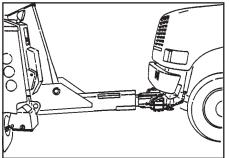


## **CAUTION:**

If vehicle to be towed is on a slope, do not release the brake until the load is secured.

It is recommended that the steering wheel be secured by a steering wheel strap for any front or rear tow.

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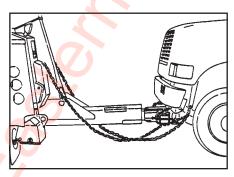


 With the vehicle in neutral and the parking brake released, you can move the vehicle safely up, down, in or out. All of these movements are hydraulically controlled.

- 8. Power retract the under lift until the casualty vehicle is about three (3) to four (4) feet from the back of the recovery vehicle. Leave enough room to maneuver around corners without corner binding or causing contact between the two (2) vehicles. Be sure that the fly boom is extended at least four (4) in. from the middle boom section to ensure unobstructed cross-bar pivoting.
- 9. Power retract the under lift until the casualty vehicle is about three (3) to four (4) feet from the back of the recovery vehicle. Leave enough room to maneuver around corners without corner binding or causing contact between the two (2) vehicles. Be sure that the fly boom is extended at least four (4) in. from the middle boom section to ensure unobstructed cross-bar pivoting.

#### NOTE:

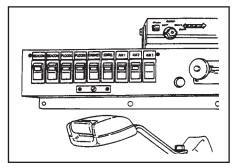
When towing, the Underlift Boom should be as close to horizontal as possible. You will have better turning and manuevering capabilities and it will prolong the life of your under lift and pivot pin.



- Be sure to maintain sufficient ground clearances with the bottom of the casualty vehicle.
- 11. Attach the safety chains and magnetic towing lights.
- 12. Hook-up and connect air and braking systems.

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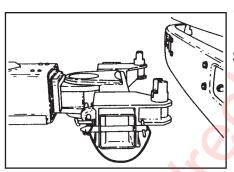
13. If the remote hand controller was used, turn the CONTROL switch "OFF". (Switch is located on panel on the floor.)



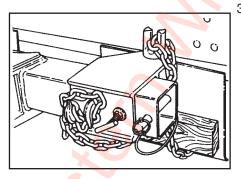
## **WARNING:**

Never fold the boom up into the storage position without removing the towing adapters from the crossbar receivers.

## **CHAIN FORKS (OPTIONAL)**

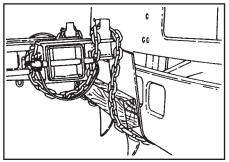


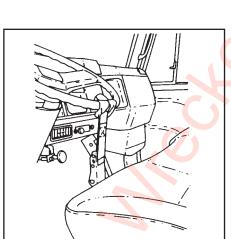
- Insert the chain forks into the receivers on the crossbar.
- Extend the under lift boom up to the casualty vehicle so that the chain forks are in the proper position for lifting.

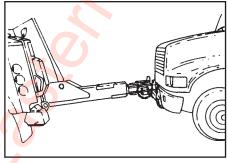


 Attach the hook-up chains to the casualty vehicle. Hook the chains through the chain forks and secure any extra chain to the hooks on the lift receivers. The use of wood blocks and rubber mats may be required to protect the casualty vehicle.

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- Raise the boom to lift the casualty vehicle slightly. At the same time make sure that you are not going to damage any components.
- Before making the final lift, check to be sure that the casualty's parking brake is released, the transmission is in neutral, and the wheels are straight.

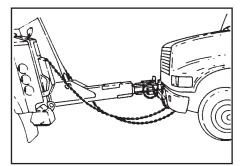


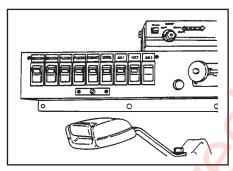
## CAUTION:

If vehicle to be towed is on a slope, do not release the brake until the load is secured.

- 6. It is recommended that the steering wheel be secured by a steering wheel strap for any front or rear tow.
- With the vehicle in neutral and the parking brake released, you can move the vehicle safely up, down, in or out. All of these movements are hydraulically controlled.
- 8. Power retract the under lift until the casualty vehicle is about three (3) to four (4) feet from the back of the recovery vehicle. Leave enough room to maneuver around corners without corner binding or causing contact between the two (2) vehicles. Be sure that the fly boom is extended at least four (4) in. from the middle boom section to ensure unobstructed crossbar pivoting.

Rev. \_\_\_\_\_





 Raise the casualty vehicle into towing position observing the far end for sufficient ground clearance. It is possible to set the rear of a front lifted vehicle completely onto the ground, causing damage. Take irregular road surfaces into consideration.

#### NOTE:

When towing, the Underlift Boom should be as close to horizontal as possible. You will have better turning and manuevering capabilities and it will prolong the life of your under lift and pivot pin.

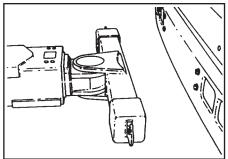
- Be sure to maintain sufficient ground clearances with the bottom of the casualty vehicle.
- 1. Attach the safety chains and auxiliary towing lights.
- 12. Hook-up and connect air and braking systems.
- 13. If the remote hand controller was used, turn the CONTROL switch "OFF". (Switch is located on panel on the floor.)



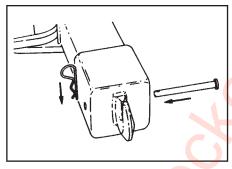
Never fold the boom up into the storage position without removing the towing adapters from the crossbar receivers.



## **CHAIN HOOK ADAPTERS**

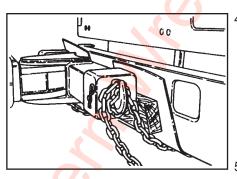


1. Slide the chain hook adapters onto the crossbar.



 Install the retaining pin from the back side of the crossbar through the adapter and crossbar and install the hair pin.

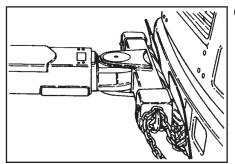
3. Extend the under lift boom up to the casualty vehicle so that the chain hook adapters are in the proper position for lifting.



4. Attach hook-up chains to the casualty vehicle. Fasten the chains in the hooks on the end of the adapters and safety wrap the chain around the bottom of the hook as shown. Secure the remaining chain.

 Raise the boom to lift the casualty vehicle slightly. At the same time make sure that you are not going to damage any components.

Rev. \_\_\_\_\_ Date \_\_\_\_\_

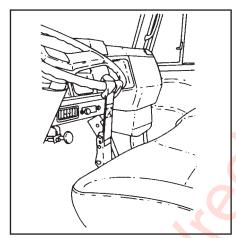


 Before making the final lift, check to be sure that the casualty's parking brake is released, the transmission is in neutral, and the wheels are straight.

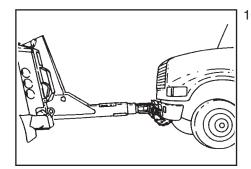


## **CAUTION:**

If vehicle to be towed is on a slope, do not release the brake until the load is secured.



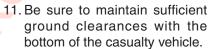
- It is recommended that the steering wheel be secured by a steering wheel strap for any front or rear tow.
- With the vehicle in neutral and the parking brake released, you can move the vehicle safely up, down, in or out. All of these movements are hydraulically controlled.
- 9. Power retract the under lift until the casualty vehicle is about three (3) to four (4) feet from the back of the recovery vehicle. Leave enough room to maneuver around corners without corner binding or causing contact between the two (2) vehicles. Be sure that the fly boom is extended at least four (4) in. from the middle boom section to ensure unobstructed crossbar pivoting.



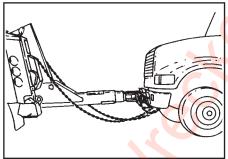
10. Raise the casualty vehicle into towing position observing the far end for sufficient ground clearance. It is possible to set the rear of a front lifted vehicle completely onto the ground, causing damage. Take irregular road surfaces into consideration.

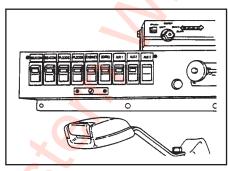
#### NOTE:

When towing, the Underlift Boom should be as close to horizontal as possible. You will have better turning and manuevering capabilities and it will prolong the life of your under lift and pivot pin.



- 12. Attach the safety chains and auxiliary towing lights.
- 13. Hook-up and connect air and braking systems.
- 14. If the remote hand controller was used, turn the CONTROL switch "OFF". (Switch is located on panel on the floor.)





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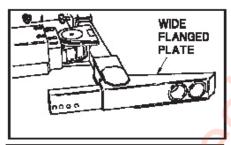
## **HEAVY DUTY TIRE LIFT (OPTIONAL)**

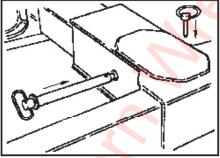
#### DO NOT EXCEED THE FOLLOWING RATINGS:

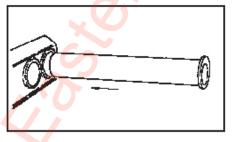
Lifting Capacity (Each Arm)	7,000 lbs.
Lifting Capacity (Total) 2	14,000 lbs.
Towing Capacity (Maximum) <sup>1</sup>	80,000 lbs.

<sup>1</sup> THE TOWING CAPACITY SHOULD NOT EXCEED THE GROSS COMBINED WEIGHT RATING (GCWR) OF THE TOWING VEHICLE OR 80,000 LBS. (GCW) GROSS COMBINED WEIGHT OF THE TOWED VEHICLE, WHICHEVER IS LOWER.

<sup>&</sup>lt;sup>2</sup> MAXIMUM LIFTING CAPACITY - THE MAXIMUM LOAD THAT CAN BE LIFTED.







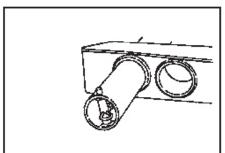
 Slide the tire lift grid onto the crossbar.



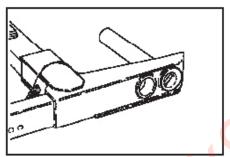
Make sure that the tire lift Grid is installed as shown with the wide flanged plate on top. The flanges are marked with an "L" for left hand and an "R" for right hand.

- Install the retaining pin from the back side of the crossbar through the grid and crossbar and secure with the pin. There are two width positions. One for wider front end lifts and one for narrower rear end lifts.
- Insert the round tube into the desired position in the grid.

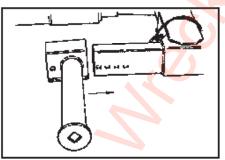
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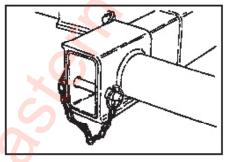
4. Install the retaining pin and hairpin.



5. Retract the tube inward to the loading position.

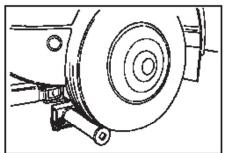


6. Slide the arm weldment over the end of the grid and adjust to the desired position for loading.

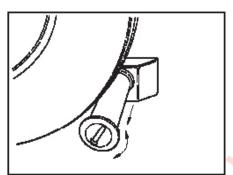


7. Install the retaining pin through the grid and arm weldment and secure with the pin.

Rev. \_\_\_\_\_ Date \_\_\_\_\_



 Extend the under lift under the casualty vehicle so that the arm makes contact with the front of the tires. At the same time make sure that you are not going to damage any under body components.

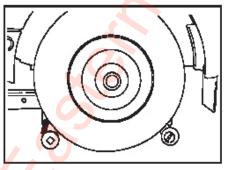


 Using the pulling tool, extend the round tube to capture the back of the tire. After extending the tube, make sure that the flanged edge of the tube is turned up to prevent the tire from sliding off the end of the tube.



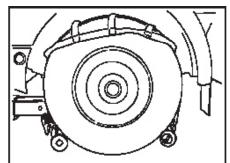
## **CAUTION:**

When lifting a vehicle that has dual tires from the rear ,only extend the round tube out to capture the inside tire. The flanged edge of the tube must be between the tires and turned up to prevent the tire from sliding off the end of the tube.

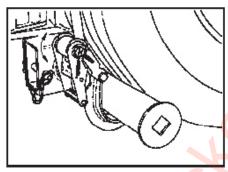


10. Raise the boom to lift the casualty vehicle slightly. At the same time make sure that you are not going to damage any components.

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11. Attach the hook end of the tiedown strap to the round tube behind the tire. Pull the strap up and cover the tire and attach the hook on the ratchet end of the strap to the arm in front of the tire.



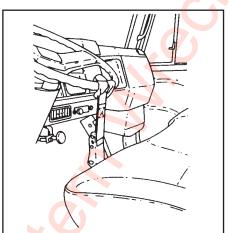
12. Take up the slack in the strap by ratcheting the takeup spool arm.

Continue until the tires show some compression.

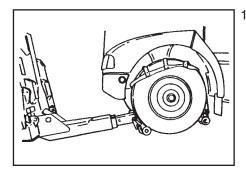


## **CAUTION:**

If vehicle to be towed is on a slope, do not release the brake until the load is secured.



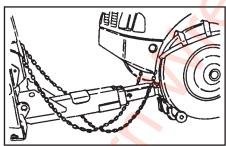
- 13. Always secure the steering wheel with a steering wheel strap for any front or rear tow.
- 14. With the vehicle in neutral and the parking brake released, you can move the vehicle safely up, down, in or out. All of these movements are hydraulically controlled.



- 15. Power retract the under lift until the casualty vehicle is about three (3) to four (4) feet from the back of the recovery vehicle. Leave enough room to maneuver around corners without corner binding or causing contact between the two (2) vehicles. Be sure that the fly boom is extended at least four (4) in. from the middle boom section to ensure unobstructed crossbar pivoting.
- 16. Raise the casualty vehicle into towing position observing the far end for sufficient ground clearance. It is possible to set the rear of a front lifted vehicle completely onto the ground, causing damage. Take irregular road surfaces into consideration.

#### NOTE:

When towing, the Underlift Boom should be as close to horizontal as possible. You will have better turning and manuevering capabilities and it will prolong the life of your under lift and pivot pin.



- 17. Be sure to maintain sufficient ground clearances with the bottom of the casualty vehicle.
- 18. Attach the safety chains and auxiliary towing lights.
- 19. Hook-up and connect air and braking systems.
- 20. If the remote hand controller was used, turn the CONTROL switch "OFF". (Switch is located on panel on the floor.)

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Do not use the tire lift if the tire(s) of the casualty vehicle are flat or if there is damage to the wheels or suspension.



The tire lift and grid tubes must be in their outermost positions for storage on the under lift when folded up in the travel position to avoid damage to the body.



Retighten the tie-down straps periodically during a tow as the tires settle into the grid from towing.



The use of secondary tie-down chains is recommended. Fit the secondary tie-down chains to the axle (not to any part of the suspension or body which will rise and fall with the suspension) arranged so as to hold the wheel down in the grid and prevent it from jumping up, forwards, or backwards. Use load binders as required.



The use of trailer brakes or secondary braking devices while towing is recommended.



Do not tow any vehicle without safety chains being installed.



Always follow the chassis manufacturer's recommended procedures for towing. Remove drive lines and drive shafts as directed. Many vehicles can be severely damaged unless these components are removed prior to towing.

# CAUTION:

All products are subject to age, wear and deterioation, all of which cause a reduction in the products breaking strength capacity. It is recommended that all products be regularly inspected. Any worn, deformed, misused or overloaded products should be replaced immediately.

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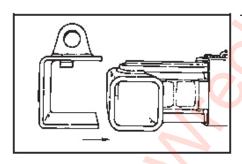
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# TRAILER 5TH WHEEL PLATE AND PINTLE HOOK BALL HITCH ADAPTER (OPTIONAL)

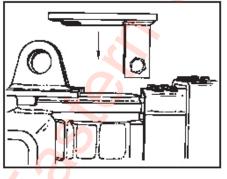
#### DO NOT EXCEED THE FOLLOWING RATINGS:

5TH WHEEL PLATE	
LIFTING CAPACITY	15,000 lbs.
TOWING CAPACITY	25,000 lbs.
PINTLE HOOK BALL HITCH	
2 IN. BALL HITCH	10,000 lbs. (GTW)
PINTLE HOOK	16,000 lbs. (GTW)
GROSS TRAILER WEIGHT	3,000 lbs.
MAXIMUM VERTICAL LOAD	

GROSS TRAILER WEIGHT (GTW) - THE MAXIMUM TRAILER WEIGHT WITH LOAD.

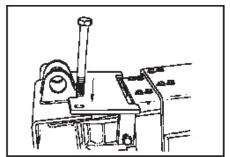


Slide the 5th wheel plate adapter onto the crossbar pivot.

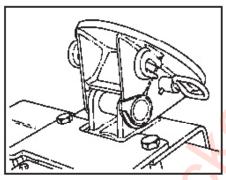


2. Install the keeper bracket down onto the crossbar pivot adapter.

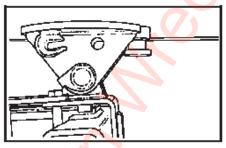
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Install the retaining bolts thru
the keeper bracket and into the
adapter. Tighten the retaining
bolts.



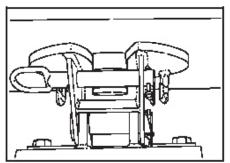
- 4. Install the 5th wheel plate onto the adapter with the attaching pin. Secure the attaching pin with the linchpin.
- 5. Remove the king pin locking pin from the 5th wheel plate and position the recovery vehicle in front of the casualty and in-line with the king pin.



6. Extend the under lift up to the king pin.

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- 7. Engage the 5th wheel plate with the king pin. Install the king pin locking pin and linchpin.
- Connect the air lines from the recovery vehicle to the casualty trailer to release the trailer brakes.
- 9. Raise the trailer jack stands.
- 10. Attach the safety chains.



## **CAUTION:**

If the trailer to be towed is on a slope, do not release the brake until the load is secured.



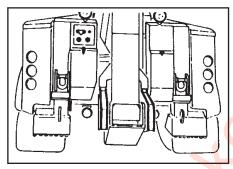
## **CAUTION:**

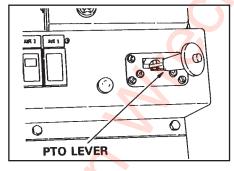
Always install safety chains before towing any vehicle.

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## REAR HYDRAULIC STABILIZERS

Your HDL is equipped with rear hydraulic stabilizers. The stabilizers serve two purposes. First, they may be used as a chassis support when lifting heavy loads which would otherwise cause the front axle of the vehicle to lift off the ground. Second, they can be used to provide a resistance to winching forces. USE CAUTION AND GOOD JUDGEMENT!





## Follow these simple steps:

- Position the recovery vehicle as close as possible to the work and set the parking brakes and place the transmission in neutral.
- Engage the power take-off (PTO). See PTO operator's instruction manual.
- Adjust the electronic or manual throttle control to elevate the engine speed to approximately 1000-1200 R.P.M. of P.T.O. output shaft speed for optimum performance.

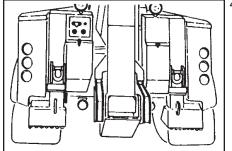


## **CAUTION:**

Never exceed 1200 R.P.M. When your hook up is complete, reset the engine idle to normal.

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 Using the control levers, lower the stabilizers to the ground. The stabilizers work independently from each other so that they can be used on uneven ground.



## CAUTION:

Do not attempt to use the stabilizers to level the recovery vehicle chassis or raise the rear of the recovery vehicle off of the ground. Damage to the chassis can occur. Use wood blocks under the tires to level the vehicle if necessary prior to lowering the stabilizers.



## WARNING:

Area should be clear of feet when lowering the rear stabilizers.



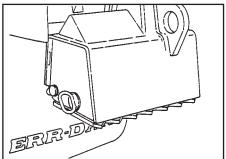
# CAUTION:

Do not move the recovery vehicle with the stabilizers on the ground or damage to the chassis can occur.

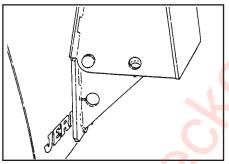
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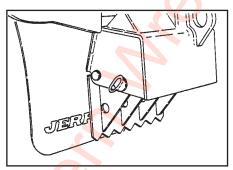
## **INTEGRAL SPADES**



1. Remove the safety pin and spade retaining pin.



2. Allow the integral spade to swing down exposing the spade blades.



3. Line up holes and insert spade retaining pin and safety pin.



Do not attempt to use the stabilizers to level the recovery vehicle chassis or raise the rear of the recovery vehicle off of the ground. Damage to the chassis can occur. Use wood blocks under the tires to level the vehicle if necessaryprior to lowering the stabilizers.



Rev. \_\_\_\_\_ Date \_\_\_\_\_

#### NOTE:

When the spade is on the ground the eye plate on the back side of the stabilizers can be used for the attachment of snatch blocks or to terminate the wire rope hook during winching operations.



## **WARNING:**

Area should be clear of feet when lowering the rear stabilizers.



# CAUTION:

Do not move the recovery vehicle with the stabilizers on the ground or damage to the chassis can occur.



## **CAUTION:**

Do not use spades on pavement or concrete. Damage to the pavement or concrete may result.

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#### WRECKER BOOM OPERATION

The wrecker boom is probably one of the most useful accessories on your HDL. It allows the operator to perform lifting and retrieval tasks that cannot be performed in any other way. Safe operation of the wrecker boom demands knowledge of the controls and the boom functions. Review the boom safety section of this manual and USE CAUTION AND GOOD JUDGEMENT!

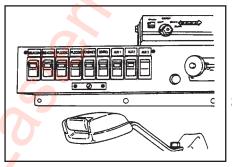
Position the recovery vehicle to best take advantage of the leverage the boom affords. A vertical lift is the best and most efficient, so attempt to place the boom over the work. This reduces the chance of the work breaking free and swinging during the lift. Place the recovery vehicle as close as possible to the work. A shorter boom extension will result in less rear axle loading. When pulling, align the recovery vehicle with the work so that the direction of pull is in line with the length of the truck. Always use more stabilizing lines than pull lines. If the front wheels of the recovery vehicle raise completely from the ground,

Stop! And Re-Rig.



Do not exceed the working limit of the wire rope. Use snatch blocks and multiple lines to reduce the load on the wire rope. Always apply an equal load in the opposite direction of the pull to stabilize the load.

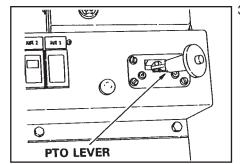
When making a heavy lift or pull with the wrecker boom, the following steps should be taken:

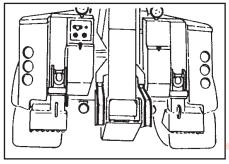


- Position the recovery vehicle as close as possible to the work and set the parking brakes and place the transmission in neutral.
- Turn "ON" the CONTROL switch if the remote hand controller is going to be used.



Rev. \_\_\_\_\_ Date \_\_\_\_\_



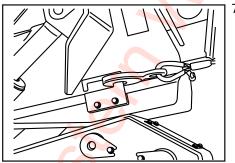


 Engage the power take-off (PTO). See PTO operator's instruction manual. Adjust the electronic or manual throttle control to elevate the engine speed to approximately 1000-1200 rpm of P.T.O. output shaft speed for optimum performance.



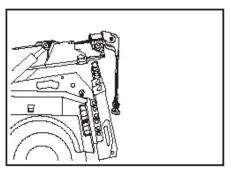
Never exceed 1200 R.P.M. When your hook up is complete, reset the engine idle to normal.

- 4. Confirm that the recovery vehicle is positioned properly and rests on firm ground. The stabilizers or spades can be lowered to provide additional support if necessary.
- 5. Using the winch control levers, unwind some wire rope from the winches to relieve the pressure on the winch free-spool device.
- 6. Pull the winch free-spool knobs to the "out" position to set both boom winches into the "free spool" mode.

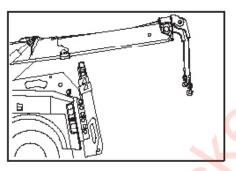


7. Wearing gloves, unhook the wire ropes from their stored position. Moving the boom head with the wire rope locked can result in damage to both the wire ropes and the boom. Carefully observe the winch drums when beginning to extend the boom to be sure both winches are free-spooling.

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8. Position the boom head by using the boom up and down lever and the boom in and out lever.



 Manually, "free-spool" enough wire rope to make the hook-up being sure that a minimum of five (5) wraps remains on the cable drums.



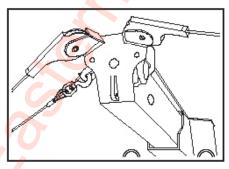
#### **WARNING:**

Wear gloves to protect hands from wire ropes.



To avoid birdnesting and premature failure of the wire rope, always keep tension on the wire rope when winding or unwinding.

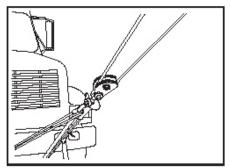
10. Make the hook-up in such a way as to afford an even pull on both wire ropes. Over stressing one wire rope can happen if care isn't taken in hook placement.



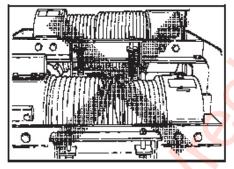
11. If a heavy lift or pull is to be made additional cable lines may be necessary. Always use more stabilizing lines than pull lines. RIG FOR SAFETY.

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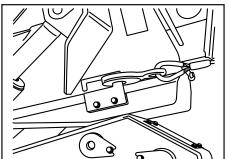
- 12. DO NOT EXCEED THE WORKING LIMIT OF THE WIRE ROPE. When making a recovery and pulling to the side, always apply an equal or lesser load in the opposite direction of the pull to stabilize the load.
- 13. The use of snatch blocks and multiple lines will allow you to pull, stabilize the recovery vehicle, and minimize deflection of the wrecker boom.





- 14. Push the winch free-spool knobs to the in position to re-engage the winch. Slowly take up the slack in the wire ropes. Inspect the hook-up points for slippage before continuing the lift or pull. Manually control each winch to ensure wire ropes are stressed evenly. As the wire rope is retrieved, be sure it doesn't criss-cross on the spool.
- 15. Complete the lift or pull being sure the work is placed in a stable location where it won't slip or roll. If there is any question about stability, use blocks or tie the work down before removing wire rope and chains.
- 16. Using the winch controls, unwind enough wire rope to remove the hooks or chains and remove them carefully. Avoid straddling the wire rope.

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- 17. Respool both wire ropes and take this opportunity to inspect them for damage. Keep tension on the wire rope while respooling.
- Retract and lower the boom to normal horizontal position and carefully snug up any loose wire rope.



## CAUTION:

Don't stress the wire rope by over retrieving or tightening and exceeding the working limit. Over stressing the wire rope beyond its working limit can cause damage resulting in premature wire rope failure.

#### MAINTENANCE AND LUBRICATION

Your HDL has been designed to give you excellent service and long life but like all equipment, it requires proper and periodic maintenance. The truck chassis itself is on a maintenance schedule recommended by the manufacturer. Follow these guidelines and protect your vehicle warranty. There are a number of different lubricants used on your HDL and the following chart details the proper lubricant and the most common brands and specification which meet the requirements.

Use only safe practices when maintaining this equipment. Always shut off the engine before reaching into pinch areas.

Inspect the vehicle and under lift system periodically for damage or evidence of pending failure. Damaged or broken parts should be replaced immediately. Never operate a machine which is known to be defective or operating improperly. The cause of any binding or leakage should be determined immediately and the problem promptly fixed.

Critical wear points on your HDL must be lubricated at regular intervals. Sliding surfaces are to be cleaned and coated with a heavy grease periodically. Cleaning every month is recommended for normal highway operations, but this frequency will vary appreciably with the type of service. Sliding on dirty wear surfaces will cause rapid wear. Fittings on linkage pivots should be greased every two (2) months, again depending upon usage. The following chart and diagram shows the location of these points, and when and what type of lubricant to use.

Check the hydraulic oil level bi-monthly or after any leakage. A sight glass has been provided on the hydraulic tank. The proper oil level is best checked with all cylinders fully retracted. Use 5W20 Dual Range hydraulic oil. (Automatic transmission fluid may be used in the hydraulic system if necessary.)

The hydraulic filters located on the return side of the hydraulic tank come equipped with restriction indicator gauges. The gauges show the operator the condition of the filter elements. When the needle reaches the red band (25 psi), the filter is starting to bypass and the element needs to be changed. Failure to change the element will result in premature wear and/ or failure of any or all of the hydraulic components. Only check gauges with hydraulic fluid at operating temperatures. Cold oil is more dense and will give a false indicator gauge reading.



Rev	
Date	

Cold temperatures can cause hydraulic oils to thicken and adversely affect the hydraulic functions of your wrecker. If this is the case, it will be necessary to change the hydraulic oil to maintain maximum system efficiency. A hydraulic oil such as Mobil DTE 11M can be used to replace the factory installed oil or it can be added to and mixed with the hydraulic oil in your factory system.

If a cylinder seal leaks, disassemble the cylinder and ascertain the cause of the leak. Small scores caused by chips or contaminated fluid can usually be worked out with fine emery cloth to avoid repetition of the trouble. Whenever any seal replacement is necessary, it is always advisable to replace all seals in that component. These seals are available in kits. Also, thoroughly clean all components before reassembly.

The body of your Jerr-Dan has been built from high strength aluminum and composite material which has been carefully assembled in our factory. To keep it clean and free of dirt use any non-abrasive soap or detergent recommended for automotive finishes. Use a soft cloth or sponge and finish with a thorough rinsing. Drying with a soft cloth or chamois will prevent spotting or streaking. A coat of automotive wax is recommended.

The HDL is mounted to the truck chassis by bolts. These bolts are torqued at the factory to 300 ft. lbs. We recommend that these bolts be re-torqued within the first 30 days and periodic inspection and retorquing of these bolts as required therafter. Replace any broken or damaged bolts immediately.

The HDL1000/350, HDL1000/550, HDL1000/565, HDL1200/530 and HDL1200/565 wrecker boom has adjustable shim plugs in it that keep the fly boom travel straight and parallel with in the outer boom. Periodically adjust and tighten the shims as they wear. These are located at the sheave end of the wrecker boom, and inside the wrecker boom in the internal end of the fly boom.



Rev	
Date	

# TIGHTENING TORQUES (FOOT-POUNDS) FOR SCREWS AND NUTS

SIZE INCHES (MM)	GRADE 2	GRADE 5	GRADE 8
1/4 (6.350)	6	8	10
5/16 (7.938)	10	14	19
3/8 (9.525)	17	27	33
7/16 (11.112)	28	45	60
1/2 (12.700)	45	68	90
9/16 (14.288)	63	100	120
5/8 (15.875)	90	135	180
3/4 (19.050)	145	230	310
7/8 (22.225)	145	380	500
1 (25.400)	220	570	760

- All torque values shown are for bolts (cap screws) and nuts that are either zinc-plated or lubricated.
- Torques shown above apply to screws and nuts used for assembly and installation of all wrecker components.
- Different torque values may be given in instructions for certain components due to short thread engagement or low-strength internal threads.
- When nuts are used, tighten nuts to torques shown (screws or bolts should be held but not turned).
- Retighten <u>nuts</u> of all mounting screws that secure the wrecker and wrecker-body
  within two weeks after they are first installed on the vehicle. Thereafter, inspect such
  screws and nuts visually once every month and after each job imposing extremely
  heavy loads on the equipment. Periodically recheck all accessible screws and nuts for
  proper tightness.
- Converting ft/lbs to Nm (Newton metres) can be accomplished by using the following:

bv:

Multiply:

ft/lbs	Х	1.3558	=	Nm (Newton metres)
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JERR-DAN		A-76		Date

to get:

### **OILS AND GREASES**

The following oils and greases are suitable for use with your Jerr-Dan.

Company	Product
HYDRAUL	LIC OILS
<ol> <li>Drydene Dual Range</li> </ol>	Hydraulic Fluid 5w20
<ol><li>Sun Refining &amp; Marketing</li></ol>	2105 Hydraulic
3. D.A. Lubricants	5w20 HiVi
4. Texaco	Rando HD AZ
<ol><li>Mobil Oil Corp.</li></ol>	DTE 15
<ol><li>Mobil Oil Corp.</li></ol>	DTE 11M
<ol><li>7. Amoco Oil Co.</li></ol>	Rykon MV
8. Citgo	A/W All Temp
GREA	SES
1. Drydene	HD Lithium EP2
2. Gulf	Crown EP2
3. Amoco	Amolith EP2
4. Shell	Alvania EP2
5. Texaco	Marfax EP2
6. Mobil	Mobilux EP2
7. Sunoco	Prestige EP2
WINCH AND	GEAR LUBE
1. Phillips	140 wt. EP Gear Lube 93301
	(or approved equivalent)



Rev. \_\_\_\_\_ Date \_\_\_\_

#### WIRE ROPE HANDLING AND INSPECTION

## **A** WARNING

Wire Rope WILL FAIL if worn-out, overloaded, misused, damaged, improperly maintained or abused.

Wire rope failure may cause serious injury or death!

Protect yourself and others:

- ALWAYS INSPECT wire rope for WEAR, DAMAGE or ABUSE BEFORE USE.
- NEVER USE wire rope that is WORN-OUT, DAMAGED or ABUSED.
- NEVER OVERLOAD a wire rope.
- INFORM YOURSELF: Read and understand manufacturer's literature or "Wire Rope and Sling Safety Bulletin".
- REFER TO APPLICABLE CODES, STANDARDS and REGULATIONS for INSPECTION REQUIREMENTS and REMOVAL CRITERIA.

A new wire rope requires a break in period. Run the wire rope through several cycles at low speeds gradually increasing the load on the wire rope. Make sure that the wraps of the wire rope are tight and evenly wound on the winch drum. A loose wire rope on the winch drum will cause crushing of the wire rope when heavy loads are applied.

All wire rope in continuous service should be observed during normal operation and visually inspected on a weekly basis. A complete and thorough inspection of all ropes in use must be made at least once a month and all rope which has been idle for a period of a month or more should be given a thorough inspection before it is put back into service. All inspections should be the responsibility of and performed by an appointed competent person with the training and experience to look for deterioration of the wire rope.

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Rev. \_\_\_\_\_ Date \_\_\_\_\_ It is good practice, where the equipment is consistently in use, to give the rope a certain length of service, several hundred hours, several weeks or months and then renew the rope regardless of it's condition. This method eliminates the risk of fatigue causing rope failure.

Any deterioration, resulting in a suspected loss of original rope strength, should be carefully examined and determination made as to whether further use of the wire rope would constitute a safety hazard.

There are certain points along any given rope which should be given more attention than others, since some areas will be subjected to greater stresses, forces, and hazards. Some of these areas include at the winch drum, at the boom sheaves and at the end attachments.

All products are subject to age, wear and deterioration, all of which cause a reduction in the products breaking strength capacity.

Probably the most common sign of rope deterioration and approaching failure is broken wires. Inspection criteria are specific as to the number of broken wires allowable under various circumstances. It is important that a diligent search be made for broken wires, particularly in critical areas. Inspection of wire rope ends should include hooks and thimbles.

Any wire ropes that have been abraded, crushed, kinked or twisted should be replaced.

Wire rope should be routinely cleaned of any and all debris. Grit and gravel can quickly reduce a wire ropes life. A wire rope should be well lubricated so that it can act and perform as it was designed. Lubrication keeps a wire rope flexible and free from rust.

Consult the manufacturer or your local distributor for the proper replacement wire rope.



Rev	
Date	

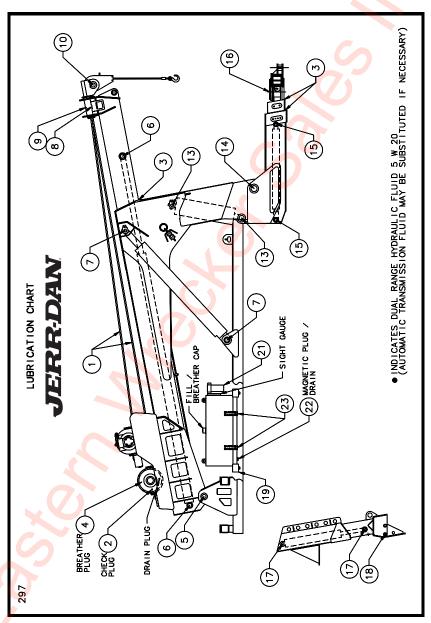
### HDL500/280 LUBRICATION POINTS

The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

					_
298					
		LUBRICA	TION C	HART	
		JERF	R-DA	N	
		<b>_</b>			
INTERVAL (HOURS)	REF NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
WEEKLY	1	CABLE	OIL	ENGINE OIL	2
50 OR	2	WINCH GEAR BOX	CHECK		2
BI-MONTHLY	3	NYLATRON PADS	COAT	MPG	3
	4	WINCH CASE BREATHERS	CHECK		2
	5	BOOM PIVOT	LUBE	MPG	1
	6	WRECKER BOOM EXT. CYLINDER	LUBE	MPG	2
	7	WRECKER BOOM	LUBE	MPG	4
	8	"D"-RING	LUBE	MPG	2
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2
	10	SHEAVE PIN	LUBE	MPG	2
	11				
100 OR	12				
MONTHLY	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2
	14	UNDERLIFT PIVOT	LUBE	MPG	3
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1
	16	CROSSTUBE P1VOT	LUBE	MPG	1
	17	SPADE Extend Cylinder	LUBE	MPG	4
	18	SPADE CLAW PIVOT	LUBE	MPG	2
	19	HYDRAUL IC RESERVOIR	CHECK		
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9
250 OR	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2
SEMI - ANNUALLY	21	HYDRAULIC FILTER	CHANGE		2
1000	19	HYDRAUL IC RESERVOIR	DRAIN & FILL	•	1
OR YEARLY	22	MAGNETIC PLUG	CLEAN		1
	23	RESERVOIR STRAINER	CLEAN		2

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### HDL500/280 LUBRICATION POINTS



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Rev. \_\_\_\_\_ Date \_\_\_\_

### HDL600/350 INT LUBRICATION POINTS

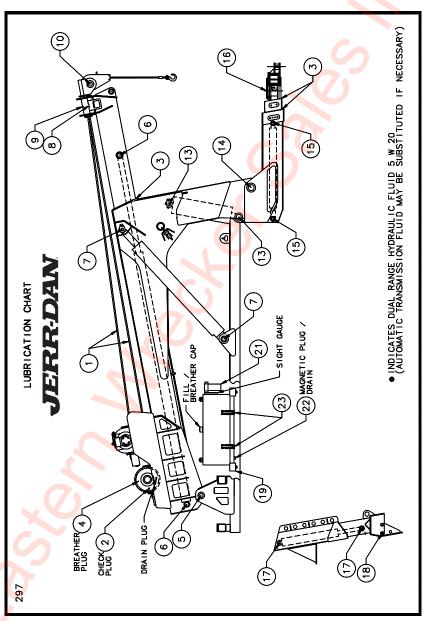
The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

298							
LUBRICATION CHART							
		JERF	P.DA	N			
		<b>_</b>					
INTERVAL (HOURS)	REF NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS		
WEEKLY	1	CABLE	OIL	ENGINE OIL	2		
50 OR	2	WINCH GEAR BOX	CHECK		2		
BI-MONTHLY	3	NYLATRON PADS	COAT	MPG	3		
	4	WINCH CASE BREATHERS	CHECK		2		
	5	BOOM PIVOT	LUBE	MPG	1		
	6	WRECKER BOOM EXT, CYLINDER	LUBE	MPG	2		
	7	WRECKER BOOM LIFT CYLINDER	LUBE	MPG	4		
	8	D'-RING	LUBE	MPG	2		
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2		
	10	SHEAVE PIN	LUBE	MPG	2		
	11						
100 OR	12				—		
MONTHLY	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2		
	14	UNDERLIFT PIVOT	LUBE	MPG	3		
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1		
	16	CROSSTUBE PIVOT	LUBE	MPG	1		
	17	SPADE EXTEND CYLINDER	LUBE	MPG	4		
	18	SPADE CLAW PIVOT	LUBE	MPG	2		
	19	HYDRAUL I C RESERVOIR	CHECK				
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9		
250 OR	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2		
SEMI- ANNUALLY	21	HYDRAUL IC FILTER	CHANGE		2		
1000	19	HYDRAUL I C RESERVO I R	DRAIN & FILL	•	1		
OR YEARLY	22	MAGNETIC PLUG	CLEAN		1		
/ EMILE!	23	RESERVOIR STRAINER	CLEAN		2		



Rev. <u>1</u>
Date 5/03

# HDL600/350 INT LUBRICATION POINTS





Rev. 1
Date 5/03

### HDL700/350 IND LUBRICATION POINTS

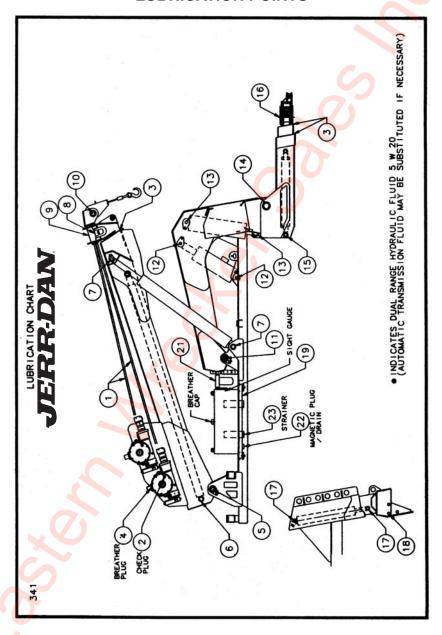
The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

270			ATION		
	1		Ra	DA	N
		w	RECKE	R	
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
WEEKLY	1	CABLE	OIL	ENGINE OIL	2
	2	WINCH GEAR BOX	CHECK		2
50 OR	3	NYLATRON PADS	COAT	MPG	3
BI-MONTHLY	4	WINCH CASE BREATHERS	CHECK		4
	5	BOOM PIVOT	LUBE	MPG	1
	6	WRECKER BOOM EXT. CYLINDER	LUBE	MPG	1 '
	7	WRECKER BOOM LIFT CYLINDER	LUBE	MPG	4
	8	"D" RING	LUBE	MPG	2
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2
	10	SHEAVE PIN	LUBE	MPG	2
	11	UNDERLIFT LIFT BOOM	LUBE	MPG	1
	12	UNDERLIFT LIFT CYLINDER	LUBE	MPG	2
100 OR	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2
MONTHLY	14	UNDERLIFT	LUBE	MPG	3
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1
	16	CROSSTUBE	LUBE	MPG	'
	17	SPADE EXTEND CYLINDER	LUBE	MPG	4
	18	SPADE CLAW PIVOT	LUBE	MPG	2
	19	HYDRAULIC RESERVOIR	CHECK		
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9
250	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2.
OR SEMI- ANNUALLY	21	HYDRAULIC FILTER	CHANGE		2
1000	19	HYDRAULIC RESERVOIR	DRAIN & FILL	•	1
OR YEARLY	22	MAGNETIC PLUG	CLEAN		1
TEAHLY	23	RESERVOIR	CLEAN		2



Rev. <u>1</u>
Date 5/03

## HDL700/350 IND LUBRICATION POINTS



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Rev. 1
Date 5/03

## HDL700/350 INT LUBRICATION POINTS

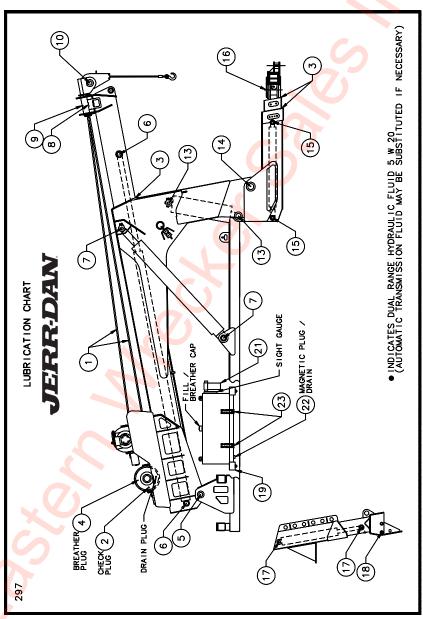
The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

298							
LUBRICATION CHART							
		JERF	2 72 72	77			
		ULRI					
(HOURS)	REF NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS		
WEEKLY	1	CABLE	OIL	ENGINE OIL	2		
	2	WINCH GEAR BOX	CHECK		2		
50 OR BI-MONTHLY	3	NYLATRON PADS	COAT	MPG	3		
	4	WINCH CASE BREATHERS	CHECK		2		
	5	BOOM PIVOT	LUBE	MPG	1		
	6	WRECKER BOOM EXT, CYLINDER	LUBE	MPG	2		
	7	WRECKER BOOM LIFT CYLINDER	LUBE	MPG	4		
	8	"D"-RING	LUBE	MPG	2		
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2		
	10	SHEAVE PIN	LUBE	MPG	2		
	11						
100	12						
OR MONTHLY	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2		
	14	UNDERLIFT PIVOT	LUBE	MPG	3		
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1		
	16	CROSSTUBE P I VOT	LUBE	MPG	1		
	17	SPADE Extend Cylinder	LUBE	MPG	4		
	18	SPADE CLAW PIVOT	LUBE	MPG	2		
	19	HYDRAUL IC RESERVOIR	CHECK				
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9		
250 OR	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2		
SEMI- ANNUALLY	21	HYDRAUL IC FILTER	CHANGE		2		
1000	19	HYDRAUL I C RESERVO I R	DRAIN & FILL	•	1		
OR YEARLY	22	MAGNETIC PLUG	CLEAN		1		
ILAKLT	23	RESERVOIR STRAINER	CLEAN		2		



Rev. <u>1</u>
Date 5/03

## HDL700/350 INT LUBRICATION POINTS



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Rev. 1
Date 5/03

### HDL1000/530 LUBRICATION POINTS

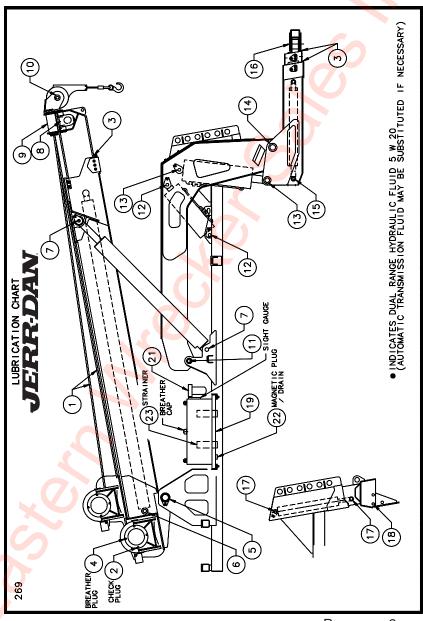
The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

270		LUBRIC	ATION	CHART	
	_	1   2   7	RI	DA	M
		w	RECKE	R	
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
WEEKLY	1	CABLE	OIL	ENGINE OIL	2
	2	WINCH GEAR BOX	CHECK		2
50 OR	3	NYLATRON PADS	COAT	MPG	3
BI-MONTHLY	4	WINCH CASE BREATHERS	CHECK		4
	5	BOOM PIVOT	LUBE	MPG	1
	6	WRECKER BOOM EXT. CYLINDER	LUBE	MPG	1 %
	7	WRECKER BOOM LIFT CYLINDER	LUBE	MPG	4
	8	"D" RING	LUBE	MPG	2
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2
	10	SHEAVE PIN	LUBE	MPG	2
	11	UNDERLIFT LIFT BOOM	LUBE	MPG	1
	12	UNDERLIFT LIFT CYLINDER	LUBE	MPG	2
100 OR	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2
MONTHLY	14	UNDERLIFT	LUBE	MPG	3
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1
	16	CROSSTUBE	LUBE	MPG	1 :
1	17	SPADE EXTEND CYLINDER	LUBE	MPG	4
	18	SPADE CLAW PIVOT	LUBE	MPG	2
7	19	HYDRAULIC RESERVOIR	CHECK		- :
U	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9
250	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2.
OR SEMI- ANNUALLY	21	HYDRAULIC FILTER	CHANGE		2
1000	19	HYDRAULIC RESERVOIR	DRAIN & FILL	•	1
OR	22	MAGNETIC PLUG	CLEAN		1
YEARLY	23	RESERVOIR	CLEAN		2



Rev. 2
Date 8/05

### HDL1000/530 LUBRICATION POINTS



JERRADAN.
An Oshkosh Corporation Company

Rev. 2
Date 8/05

### HDL1000/565 LUBRICATION POINTS

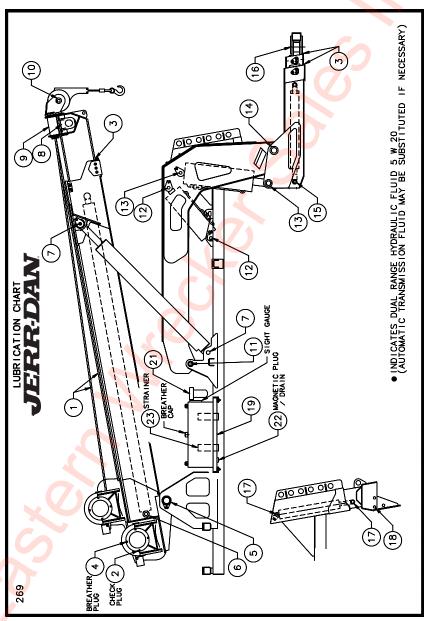
The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

270		LUBRIC	ATION	CHART	
	_	1 2 3	P.1		
				77	<b>1</b>
		W	RECKE	R	
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
WEEKLY	1	CABLE	OIL	ENGINE OIL	2
	2	WINCH GEAR BOX	CHECK		2
50 OR	3	NYLATRON PADS	COAT	MPG	3
BI-MONTHLY	4	WINCH CASE BREATHERS	CHECK		4
100	5	BOOM PIVOT	LUBE	MPG	1 .
	6	WRECKER BOOM EXT. CYLINDER	LUBE	MPG	1 1
	7	WRECKER BOOM	LUBE	MPG	4
	8	"D" RING	LUBE	MPG	2
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2
	10	SHEAVE PIN	LUBE	MPG	2
	11	UNDERLIFT LIFT BOOM	LUBE	MPG	1
	12	UNDERLIFT LIFT CYLINDER	LUBE	MPG	2
100 OR	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	. 2
MONTHLY	14	UNDERLIFT	LUBE	MPG	3
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1
	16	CROSSTUBE	LUBE	MPG	1
	17	SPADE EXTEND CYLINDER	LUBE	MPG	4
	18	SPADE CLAW PIVOT	LUBE	MPG	2
	19	HYDRAULIC RESERVOIR	CHECK		- :
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9
250	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2
OR SEMI- ANNUALLY	21	HYDRAULIC FILTER	CHANGE		2
1000	19	HYDRAULIC RESERVOIR	DRAIN & FILL	•	1
OR	22	MAGNETIC PLUG	CLEAN		1
YEARLY	23	RESERVOIR	CLEAN		2



Rev. 2
Date 8/05

### HDL1000/565 LUBRICATION POINTS



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Rev. <u>2</u>
Date <u>8/05</u>

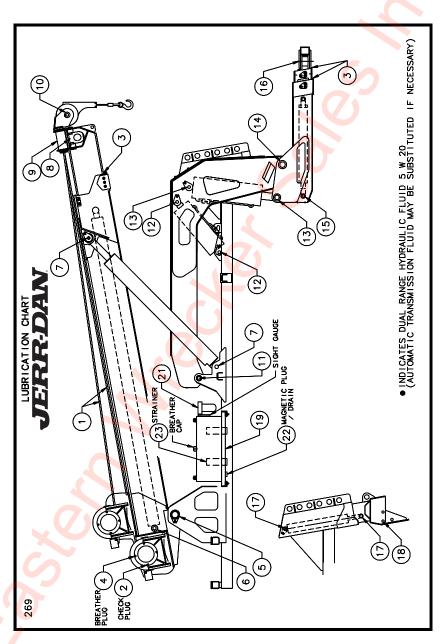
#### HDUL530 LUBRICATION POINTS

The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

270			ATION		
	1			DA	V.
		w	RECKE	R	
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
WEEKLY	1	CABLE	OIL	ENGINE OIL	2
	2	WINCH GEAR BOX	CHECK		2
50 OR	3	NYLATRON PADS	COAT	MPG	3
BI-MONTHLY	4	WINCH CASE BREATHERS	CHECK		4
	5	BOOM PIVOT	LUBE	MPG	1
-	6	WRECKER BOOM EXT. CYLINDER	LUBE	MPG	1 '
	7	WRECKER BOOM LIFT CYLINDER	LUBE	MPG	4
	8	"D" RING	LUBE	MPG	2
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2
	10	SHEAVE PIN	LUBE	MPG	2
	11	UNDERLIFT LIFT BOOM	LUBE	MPG	1
	12	UNDERLIFT LIFT CYLINDER	LUBE	MPG	2
100 OR	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2
MONTHLY	14	UNDERLIFT	LUBE	MPG	3
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1
	16	CROSSTUBE	LUBE	MPG	1
	17	SPADE EXTEND CYLINDER	LUBE	MPG	4
	18	SPADE CLAW PIVOT	LUBE	MPG	2
	19	HYDRAULIC RESERVOIR	CHECK		
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9
250 OR	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2.
SEMI- ANNUALLY	21	HYDRAULIC FILTER	CHANGE		2
1000	19	HYDRAULIC RESERVOIR	DRAIN & FILL	•	1
OR	22	MAGNETIC PLUG	CLEAN		1
YEARLY	23	RESERVOIR	CLEAN		2

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### HDUL530 LUBRICATION POINTS



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#### HDUL565 LUBRICATION POINTS

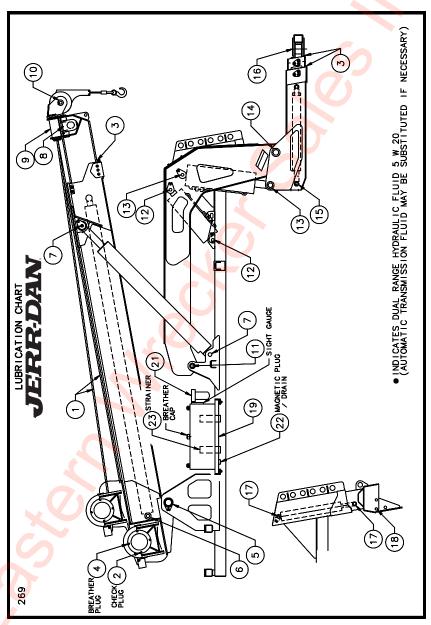
The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

270		LUBRIC	ATION	CHART	
	•		Ra	DA	V
		w	RECKE	R	
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
WEEKLY	1	CABLE	OIL	ENGINE OIL	2
	2	WINCH GEAR BOX	CHECK		2
50 OR	3	NYLATRON PADS	COAT	MPG	3
BI-MONTHLY	4	WINCH CASE BREATHERS	CHECK		4
	5	BOOM PIVOT	LUBE	MPG	1
	6	WRECKER BOOM EXT. CYLINDER	LUBE	MPG	1 9
	7	WRECKER BOOM LIFT CYLINDER	LUBE	MPG	4
	8	"D" RING	LUBE	MPG	2
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2
	10	SHEAVE PIN	LUBE	MPG	2
	11	UNDERLIFT LIFT BOOM	LUBE	MPG	1
	12	UNDERLIFT LIFT CYLINDER	LUBE	MPG	2
100 OR	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2
MONTHLY	14	UNDERLIFT	LUBE	MPG	3
4	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1
	16	CROSSTUBE	LUBE	MPG	1
	17	SPADE EXTEND CYLINDER	LUBE	MPG	4
	18	SPADE CLAW PIVOT	LUBE	MPG	2
	19	HYDRAULIC RESERVOIR	CHECK		
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9
250	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2
OR SEMI- ANNUALLY	21	HYDRAULIC FILTER	CHANGE		2
1000	19	HYDRAULIC RESERVOIR	DRAIN & FILL	•	1
OR	22	MAGNETIC PLUG	CLEAN		1
YEARLY	23	RESERVOIR	CLEAN		2

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Rev. \_\_\_\_\_ Date \_\_\_\_

#### HDUL565 LUBRICATION POINTS



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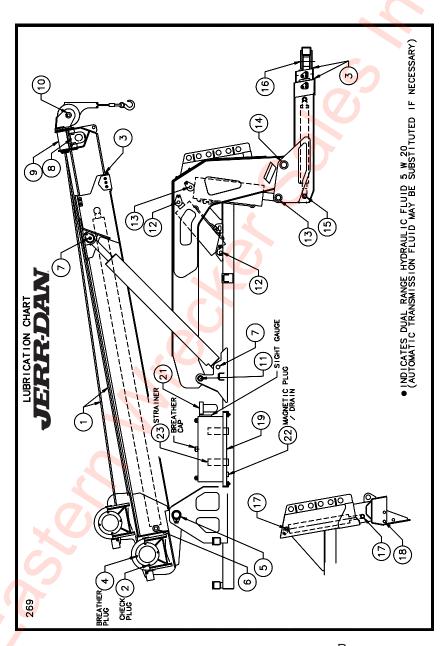
### HDL1200/530 LUBRICATION POINTS

The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

270 LUBRICATION CHART					
JERR-DAN					
WRECKER					
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
WEEKLY	1	CABLE	OIL	ENGINE OIL	2
	2	WINCH GEAR BOX	CHECK		2
50 OR	3	NYLATRON PADS	COAT	MPG	3
BI-MONTHLY	4	WINCH CASE BREATHERS	CHECK		4
100	5	BOOM PIVOT	LUBE	MPG	1 .
	6	WRECKER BOOM EXT. CYLINDER	LUBE	MPG	1 .
	7	WRECKER BOOM	LUBE	MPG	4
	8	"D" RING	LUBE	MPG	2
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2
	10	SHEAVE PIN	LUBE	MPG	2
100 OR	11	UNDERLIFT LIFT BOOM	LUBE	MPG	1
	12	UNDERLIFT LIFT CYLINDER	LUBE	MPG	2
	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2 1
MONTHLY	14	UNDERLIFT	LUBE	MPG	3
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1
	16	CROSSTUBE	LUBE	MPG	1
	17	SPADE EXTEND CYLINDER	LUBE	MPG	4
	18	SPADE CLAW PIVOT	LUBE	MPG	2
	19	HYDRAULIC RESERVOIR	CHECK		
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9
250	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2.
OR SEMI- ANNUALLY	21	HYDRAULIC FILTER	CHANGE		2
1000 OR YEARLY	19	HYDRAULIC RESERVOIR	DRAIN & FILL	•	1
	22	MAGNETIC PLUG	CLEAN		1
	23	RESERVOIR	CLEAN		2

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### HDL1200/530 LUBRICATION POINTS



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### HDL1200/565 LUBRICATION POINTS

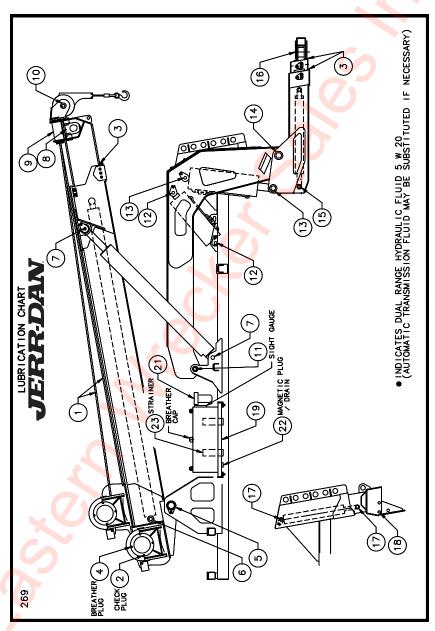
The following lubrication charts are located inside the tool box door on the driver's side of the HDL body.

270		LUBRIC	ATION	CHART	
	_	1 = 7		DA	V
		W	RECKE	R	0
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
WEEKLY	1	CABLE	OIL	ENGINE OIL	2
	2	WINCH GEAR BOX	CHECK		2
50 OR	3	NYLATRON PADS	COAT	MPG	3
BI-MONTHLY	4	WINCH CASE BREATHERS	CHECK		4
	5	BOOM PIVOT	LUBE	MPG	1
	6	WRECKER BOOM EXT. CYLINDER	LUBE	MPG	1 .
	7	WRECKER BOOM	LUBE	MPG	4
	8	"D" RING	LUBE	MPG	2
	9	WRECKER BOOM SHEAVE HEAD	LUBE	MPG	2
	10	SHEAVE PIN	LUBE	MPG	2
100 OR	11	UNDERLIFT LIFT BOOM	LUBE	MPG	1
	12	UNDERLIFT LIFT CYLINDER	LUBE	MPG	2
	13	UNDERLIFT TILT CYLINDER	LUBE	MPG	2
MONTHLY	14	UNDERLIFT	LUBE	MPG	3
	15	UNDERLIFT EXTEND CYLINDER	LUBE	MPG	1
	16	CROSSTUBE	LUBE	MPG	1
	17	SPADE EXTEND CYLINDER	LUBE	MPG	4
	18	SPADE CLAW PIVOT	LUBE	MPG	2
	19	HYDRAULIC RESERVOIR	CHECK		
	20	CONTROL VALVE HANDLES	CLEAN & OIL	ENGINE OIL	9
250	2	WINCH GEAR BOX	DRAIN & FILL	GL 5 #140	2.
OR SEMI- ANNUALLY	21	HYDRAULIC FILTER	CHANGE		2
1000	19	HYDRAULIC RESERVOIR	DRAIN & FILL	•	1
OR	22	MAGNETIC PLUG	CLEAN		1
YEARLY	23	RESERVOIR	CLEAN		2



Rev. \_\_\_\_\_ Date \_\_\_\_

#### HDL1200/565 LUBRICATION POINTS



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#### **TROUBLE SHOOTING**

You probably won't require anything but preventive maintenance to keep your HDL running, however, the following chart should help you isolate and correct minor problems if they occur with use. Any service work on the hydraulic system should be performed by qualified mechanics.

#### HYDRAULIC SYSTEM

Problem	Cause	Solution
Slow operation	a. Low engine RPM	a. Speed up engine
	b. Low oil level	b. Check level and fill with the specified oil
	c. Blocked or restricted hose	c. Inspect: remove blockage
	d. Dirty hydraulic oil	d. Drain, flush and refill with clean oil, replace filter
	e. Hydraulic pump worn	e. Rebuild or replace
	f. Frozen hydraulic lines	f. Thaw and remove water
Valve handle sticks tight or frozen	a. Insufficient lubrication	a. Lubricate per lube chart
	b. Broken centering spring or clogged with foreign material	b. Inspect, clean or replace
Valve leaks	a. Defective seals	a. Inspect and replace
Cylinder leaks	a. Defective seals or rods	a. Inspect and replace
Erratic cylinder function	a. Air in the system	a. Cycle hydraulic system 10 to 15 times to remove air
	b. Defective pump (pulsating)	b. Replace if necessary
Remote hand controller fails to	a. Electric power turned off	a. Turn on CONTROL power switch in cab
respond	b. Discharged battery	b. Charge battery
	c. Defective battery	c. Replace
	d. Emergency - Off switch depressed	d. Release/pull switch on transmitter

#### P.T.O. FUNCTIONING IMPROPERLY

Problem	Cause	Solution
Cable tight or frozen	a. Cable kinked or bent	a. Straighten or replace
6	b. Cable and PTO connection not adjusted properly	b. Inspect and adjust
. 0	c. Mounting bracket nuts are over tightened at P.T.O.	c. Loosen if necessary
Rattling noise in P.T.O.	a. P.T.O. backlash too loose (Consult P.T.O. Manual)	a. Shims must be removed



Rev. \_\_\_\_\_ Date

#### **TROUBLESHOOTING**

#### P.T.O. FUNCTIONING IMPROPERLY

Problem	Cause	Solution
Howling noise in P.T.O.	a. P.T.O. backlash too tight (Consult P.T.O. Manual)	a. Shims must be added
Gear oil leak between P.T.O. and pump	a. Defective shaft seal	a. Remove and replace
P.T.O. will not engage or disengage	a. Cable and PTO connection not adjusted properly	a. Inspect and adjust
	b. Defective shifter cover	b.Inspect and replace

#### **HYDRAULIC PUMP**

Problem	Cause	Solution
Pump noisy	a. Low oil supply	a. Fill to proper level
(Cavitation)	b. Heavy oil	b. Fill with proper oil (See chart)
	c. Dirty oil filter	c. Replace filter
	d. Restriction in suction line	d. Clean out and remove
	e. Pump worn	e. Repair or replace
Pump slow or fails to respond	a. Low oil supply b. Cold Thick Oil	a. Fill to proper level     b. Drain and refill with a low     temperature oil.
Oil heating up	a. Foreign material lodged in relief valve	a. Inspect and remove/replace filter
	b. Using too light oil	b. Drain and refill with clean oil
	c. Dirty oil	c. Drain, flush and refill with clean oil/replace filter
	d. Oil level too low	d. Fill to proper level
	e. Pump worn (slippage)	e. Repair or replace
Oil foaming	a. Air leaking into suction line	a. Tighten all connections
	b. Wrong kind of oil	b. Drain and refill with non-foaming type of hydraulic oil (See lube chart)
		Replace filter
	c. Oil level too low	c. Refill to proper level
Hydraulic oil leak between P.T.O. and pump	a. Defective shaft seal	a. Replace shaft seal
Pump leaks at front and rear covers	a. Defective seals	a. Replace seals





#### **TROUBLESHOOTING**

### WINCH FUNCTIONING IMPROPERLY

Problem	Cause	Solution
Winch screeches during operation	a. Insufficient lubrication	a. Lubricate per lube chart
Winch will not pull load or take in wire rope	a. Free-spooling device not engaged	a. Engage
	b. Sheared keys or broken coupling	b. Inspect or replace
	c. Hydraulic pump worn	c. Inspect and replace
Free-spool device	a. No air pressure	a. Turn truck on
	b. Insufficient air pressure	b. Allow truck to run
	c. Defective pressure switch	c. Inspect and replace
	d. Leaking air line	d. Inspect and replace
Cable tensioner	a. No air pressure	a. Turn truck on
device non-functional	b. Insufficient air pressure	b. Allow truck to run
	c. Defective pressure switch	c. Inspect and replace
	d. Leaking air line	d. Inspect and replace
Cable speed shift	a. No air pressure	a. Turn truck on
nonfunctional	b. Insufficient air pressure	b. Allow truck to run
	c. Defective pressure switch	c. Inspect and replace
	d. Leaking air line	d. Inspect and replace





